

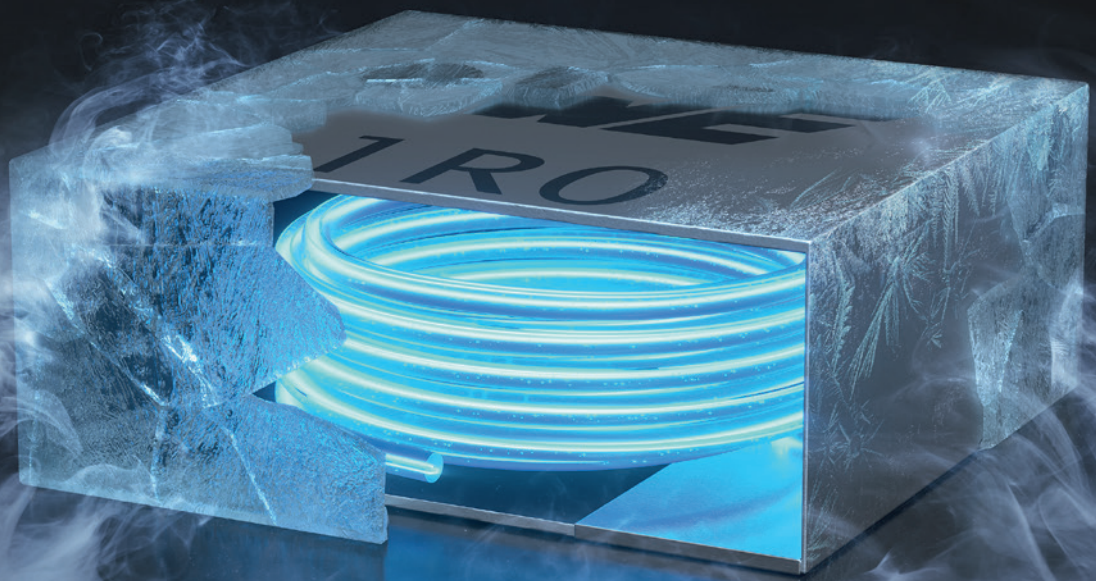
ELECTRONIC COMPONENTS 2024/2025



WÜRTH ELEKTRONIK MORE THAN YOU EXPECT

ULTRA LOW LOSSES

WE-MXGI



With the WE-MXGI Würth Elektronik offers the newest molded power inductor series. It combines an innovative iron alloy material that provides high permeability for lowest R_{DC} values combined with an optimized wire geometry.

Ready to Design-In? Take advantage of personal technical support and free samples ex-stock.

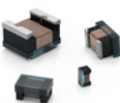
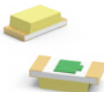
www.we-online.com/WE-MXGI

Highlights

- Extremely high power density
- Ultra low R_{DC} values and AC losses
- Magnetically shielded
- Optimized for high switching frequencies beyond 1 MHz

CONTENT

1. NEW PRODUCTS

	WE-EMIP 6 EMI Patch		WE-RFI 12 Ferrite SMT Inductor		WL-SMCW 16 SMT Mono-Color Chip LED Waterclear
	WE-RFI 8 SMT Wirewound Ferrite Bead		WL-OSEN 14 Optical Sensor Reflective		WL-OCTR 17 Optocoupler Triac
	WE-MXGI 10 SMT Power Inductor		WL-SMCC 15 SMT Mono-Color Chip LED Compact		MAGI³C-VDMM 22 Variable Step Down Micromodule

2. PRODUCT OVERVIEW

	EMC Components 23		Optoelectronics 37
	Power Magnetics 27		Power Modules 43
	Signal & Communications 30		Digital Isolators 44
	Quartz & Oscillators 32		Radio Modules 45
	Capacitors 33		Sensors 46
	Resistors 36		

Information in this publication is subject to change. The process of continually improving our product range leads to changes in content. For new designs please refer to the latest data sheets on www.we-online.com or contact our technical field staff.

THE WÜRTH ELEKTRONIK

eiSos GROUP



THE WÜRTH ELEKTRONIK GROUP

Employees: 7,900*
Sales: 1.24 Bn. Euro*
 *2023

WÜRTH ELEKTRONIK eiSos GROUP



PRINTED CIRCUIT
BOARDS

INTELLIGENT
POWER AND
CONTROL SYSTEMS

Passive
Components



Power Modules &
Optoelectronics



Electromechanical
Components



Automotive &
eMobility



Wireless Connectivity &
Sensors



GLOBALLY AVAILABLE. LOCALLY PRESENT.



13
Warehouses



15
Quality & Design Centers



16
Production plants



50
Countries



MORE THAN YOU EXPECT: SUPPORT THROUGHOUT THE WHOLE PRODUCT LIFE CYCLE

CONCEPT

- Local support through our technical sales team and field application engineers in 50 countries
- Design-in support
- Reference designs with leading IC manufacturers
- Seminars, webinars, in-house seminars and videos-on-demand

DESIGN & DEVELOPMENT

- Technical consulting through our technical sales team and field application engineers
- Free samples within 24 – 48 h
- Online platform **REDEXPERT**
- Application notes
- Design kits with free refill
- Component libraries for CAD and CAE tools
- Application handbooks in hardcopy & e-book

PROTOTYPING & TESTING

- No MOQ
- EMC test lab racks
- Re-Reeling
- EMC lab search engine

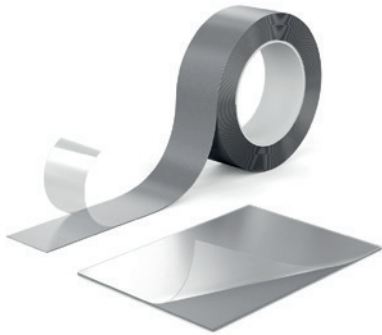
PRODUCTION & AFTER SALES SERVICE

- All catalog products available ex stock
- Logistic concepts
- Longtime availability of components
- Smart PCN
- Customer API
- Customer platform MyWE



WE-EMIP

EMI PATCH



Characteristics

- Hybrid material with absorber and metal layers, effective both against magnetic and electric fields
- Wide frequency range from 100 Hz up to 25 GHz
- Extremely flexible and easy to process
- Isolated version with high surface resistance
- Non-isolated version which allows the connection of the metal layer to ground
- Self-adhesive for easy installation
- Metal layer: Aluminum
- Operating temperature: -25 °C up to +105 °C

Applications

- Alternative to classical shielding cabinet solution, providing similar levels of shielding effectiveness
- EMC noise suppression
- Magnetic decoupling
- SAR reduction
- Avoiding cavity resonances
- Prevention of electro static discharge
- Housing and openings between PCB's, on IC's, processors and controllers, on cables which need high flexibility and LCD/LED monitors

Extremely thin and flexible EMI solution

Order Code	Version	μ' @ 1 MHz	L (mm)	W (mm)	H (mm)
371000	Non-Isolated	100	15000	50	0.072
371001	Non-Isolated		105	74	
371002	Non-Isolated		297	210	
371100	Isolated		15000	50	
371101	Isolated		105	74	
371102	Isolated		297	210	

μ' @ 1 MHz: Complex Permeability; L: Length; W: Width; H: Height



ABC OF SHIELDING

BASIC PRINCIPLES, COMPONENTS AND APPLICATIONS



1st Edition 744021

The Reference Guide "ABC of Shielding" consists of three different parts which are the basic principles, components and the application part. This reference book brings the knowledge about EMC shielding and shielding materials with their properties and characterizations to the point. Based on various applications, users are given practical advice to successfully use shielding in the application.

New!

Chapter 1

- handles Basic Principles like PCB design aspects or standards and how to meet them with shielding materials. Basic physical effects are explained.

Chapter 3

- provides practical guidance on the use of shielding materials in applications such as wireless power, board level shielding or NFC and RFID applications.

Chapter 2

- describes the various shielding materials, their characterization and technical parameters.

Additionally

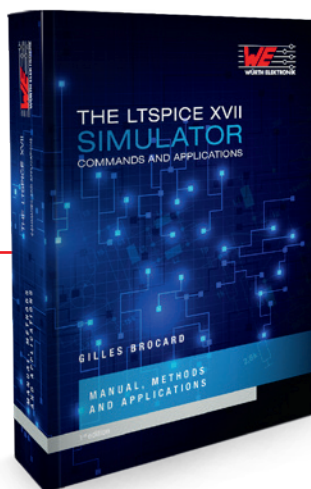
- a section of tips is providing a comprehensive overview with practical tips on the selection and use of shielding materials.



More details online
www.we-online.com/abcshielding

THE LTSPICE XVII

SIMULATOR APPLICATION MANUAL



Manual, methods and applications, 1st reprinted edition 744020

The application manual for the simulation software LTspice XVII is an indispensable tool for beginners and advanced users alike. For the beginner, the book offers instructions on installation and updates, file types and circuit examples.

Available
again

Chapter 1

- handles Basic Principles like PCB design aspects or standards and how to meet them with shielding materials. Basic physical effects are explained.

Chapter 3

- provides practical guidance on the use of shielding materials in applications such as wireless power, board level shielding or NFC and RFID applications.

Chapter 2

- describes the various shielding materials, their characterization and technical parameters.

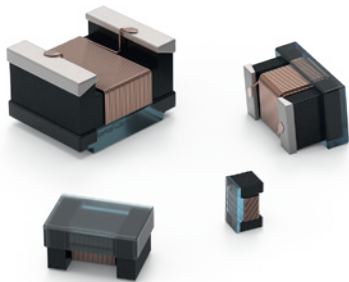
Additionally

- a section of tips is providing a comprehensive overview with practical tips on the selection and use of shielding materials.



More details online
www.we-online.com/ltspicesimulator

SMT WIREWOUND FERRITE BEAD



Characteristics

- High performance ferrite beads
- High impedance over a broad bandwidth
- High current ratings
- No core saturation and very low R_{DC}
- Custom designs on request
- Recommended soldering: Reflow
- AEC-Q200 Grade 3 (-40°C to +85°C)

Applications

- Low pass filters to eliminate high frequency noise
- Perfect as data line filter and for uncoupling of distribution voltage

High impedance over
a broad bandwidth

Size 0402

Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	Test Condition Z _{max}	I _{R2} (mA)	R _{DC max.} (m Ω)
7447650120	11	187	7720 MHz	1770	25
7447650130	16	261	3800 MHz	1470	35
7447650133	18	327	3875 MHz	1470	35
7447650136	20	380	3875 MHz	1380	40
7447650177	42	802	2980 MHz	1030	90
7447650210	55	1184	2955 MHz	890	130
7447650212	65	1160	2955 MHz	940	110
7447650215	84	2063	2590 MHz	885	130
7447650218	100	1836	2955 MHz	765	160
7447650222	120	2318	2170 MHz	640	220
7447650227	150	2883	2015 MHz	600	260
7447650236	200	4418	1565 MHz	515	375
7447650242	235	4888	1810 MHz	440	460
7447650247	260	4790	1600 MHz	430	510
7447650253	300	6050	1600 MHz	370	615
7447650259	330	6260	1370 MHz	360	670
7447650270	400	7130	1565 MHz	260	1125
7447650277	430	8900	1240 MHz	240	1250

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; Test Condition Z_{max}: Maximum Impedance (Test cond.);
I_{R2}: Rated Current 2; R_{DC max.}: DC Resistance max.

Size 0603

Order Code	Z @ 10 MHz (Ω)	Z @ 100 MHz (Ω)	Z _{max} (Ω)	Test Condition Z _{max}	I _{R2} (mA)	R _{DC max.} (m Ω)
7447610139	–	20	160	2320 MHz	1910	42
7447610168	–	35	265	1925 MHz	1650	50
7447610211	–	60	540	1925 MHz	1230	78
7447610215	–	80	705	1885 MHz	1170	90
7447610220	–	105	860	1730 MHz	1100	105
7447610224	–	125	1215	1345 MHz	810	180
7447610227	–	140	1255	1540 MHz	790	165
7447610236	–	190	1840	1040 MHz	770	185
7447610242	–	220	2000	1110 MHz	670	255
7447610256	–	320	2820	915 MHz	640	270
7447610260	–	320	2700	1000 MHz	545	380
7447610282	–	440	3590	830 MHz	470	450
7447610310	–	535	4670	680 MHz	375	700
7447610315	–	830	6910	605 MHz	240	1070
7447610322	130	–	6380	110 MHz	575	400
7447610333	190	–	10250	110 MHz	350	950
7447610347	280	–	11100	67 MHz	300	1125
7447610356	325	–	12080	62 MHz	315	1055
7447610368	400	–	13300	52 MHz	280	1380
7447610382	490	–	14390	46 MHz	250	1550
7447610410	580	–	15450	40 MHz	260	1700
7447610415	950	–	22410	30 MHz	155	3900

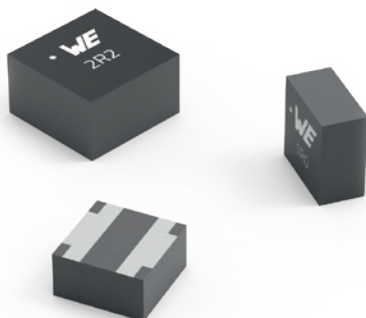
Z @ 10 MHz: Impedance @ 10 MHz; Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; Test Condition Z_{max}: Maximum Impedance (Test cond.); I_{R2}: Rated Current 2; R_{DC max.}: DC Resistance max.



Check the complete series
www.we-online.com/we-rfi

WE-MXGI

SMT POWER INDUCTOR



Characteristics

- Innovative nanocrystalline material
- Ultra low R_{DC} and AC losses
- High efficiency and current capability
- Optimized for high switching frequencies beyond 1 MHz
- Compact design
- Magnetically shielded construction
- Operating temperature: -40°C to 125°C

Applications

- DC/DC-converter for high current power supplies
- DC/DC-converter for Field Programmable Gate Array (FPGA)
- POL-converters
- Portable power like PDA, digital camera
- Mainboards/graphic cards
- Battery powered devices
- Wireless communication devices
- Power supplies for smartphones, tablet PCs and other mobile devices
- High frequency applications (GaN and SiC)

Ultra low R_{DC}
and AC losses

Size 4020

Order Code	L (μ H)	$I_{RP,40K}$ (A)	$I_{SAT,30\%}$ (A)	$R_{DC typ.}$ (m Ω)	f_{res} (MHz)	V_{OP} (V)
74438440200016	0.16	24.2	27.9	1.5	197	80
74438440200030	0.3	23.2	17.6	2	135	
74438440200040	0.4	16.9	14.8	3.8	122	
74438440200065	0.65	15.2	12.6	4.8	80	
7443844020010	1	12.1	9.8	6.9	59	
7443844020012	1.2	11	8.8	8.4	53	
7443844020015	1.5	10.3	8.4	10	50	
7443844020018	1.8	9.5	7.1	11.9	42	
7443844020022	2.2	7.8	5.8	15.6	37	
7443844020033	3.3	6.1	5.3	26.6	29	
7443844020047	4.7	5.2	5.7	40.3	25	

L: Inductance; $I_{RP,40K}$: Performance Rated Current; $I_{SAT,30\%}$: Saturation Current @ 30%; $R_{DC typ.}$: DC Resistance ;
 f_{res} : Self Resonant Frequency; V_{OP} : Operating Voltage



Size 5030

Order Code	L (μH)	I _{RP,40K} (A)	I _{SAT,30%} (A)	R _{DC typ.} (mΩ)	f _{res} (MHz)	V _{OP} (V)
74438450300022	0.22	28.1	25.4	1.5	155	80
74438450300047	0.47	23	20	2.4	84	
74438450300060	0.6	21.5	21.2	2.8	73	
74438450300082	0.82	19	16.7	3.5	55	
7443845030010	1	15.8	14.3	5.2	52	
7443845030012	1.2	17.2	14.3	4.5	43	
7443845030015	1.5	14.9	12.3	5.5	36	
7443845030022	2.2	12.4	10.5	8.1	35	
7443845030033	3.3	10	8.2	12.9	25	
7443845030047	4.7	8.2	7.7	22.5	21	
7443845030056	5.6	7.1	6.8	24.5	19	
7443845030068	6.8	6.5	6.8	28.3	18	
7443845030082	8.2	6.1	5.9	34	15	
7443845030100	10	5.5	5.4	41.5	12	
7443845030120	12	5	4.9	52.3	11	
7443845030150	15	4.5	4.3	64.5	10	

L: Inductance; I_{RP,40K}: Performance Rated Current; I_{SAT,30%}: Saturation Current @ 30%; R_{DC typ.}: DC Resistance;
f_{res}: Self Resonant Frequency; V_{OP}: Operating Voltage

DC/DC CONVERTER HANDBOOK

SMPS TOPOLOGIES FROM AN EMC POINT OF VIEW

1ST EDITION 9999669



The selection and design of a power supply circuit is often only considered late in the development process of an electronic device. Developers are then faced with the challenge of designing a DC/DC converter – a task that is no easy feat.

To help designers with this challenge, we have published the 'DC/DC Converter Handbook – SMPS Topologies from an EMC Point of View'. It provides valuable insights into the selection of the best components for different topologies as well as layout recommendations.

New!

Chapter 1 provides general information on

- The selection of components and the
- Technical parameters to be observed

Chapter 2 deals with the following DC/DC

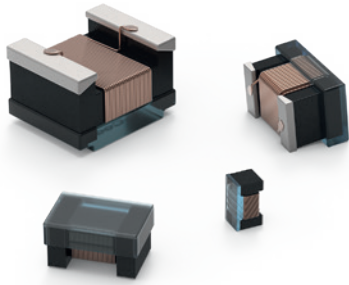
- Converter topologies:
- Buck Converter
- Boost Converter
- SEPIC-Converter
- Flyback Converter



More details online
www.we-online.com/dcdchandbook

WE-RFI

FERRITE SMT INDUCTOR



Characteristics

- High inductances
- Recommended soldering: Reflow
- Custom designs on request
- AEC-Q200 Grade 3 (−40 °C to +85 °C)

Applications

- Especially developed for RF applications
- Low frequency radio applications (keyless)
- RFID

High inductances

Size 0402

Order Code	L (nH)	Tol. L	Test Condition L (MHz)	Q	Test Condition Q (MHz)	R _{DC max} (mΩ)	I _R (mA)	f _{res} (MHz)
7447650120	20	±5%	7.9	11	7.9	25	1770	7720
7447650130	30					35	1470	3800
7447650133	33					35	1470	3875
7447650136	36					40	1380	3875
7447650177	77					90	1030	2980
7447650210	100			130		890	2955	
7447650212	120			110		940	2955	
7447650215	150			130		885	2590	
7447650218	180			160		765	2955	
7447650222	220			220		640	2170	
7447650227	270			260		600	2015	
7447650236	360			375		515	1565	
7447650242	420			460		440	1810	
7447650247	470			510		430	1600	
7447650253	530			615		370	1600	
7447650259	590			670		360	1370	
7447650270	700			11		1125	260	1565
7447650277	770			12		1250	240	1240

L: Inductance; Tol. L: Inductance (Tol.); Test Condition L: Inductance (Test cond.); Q: Q-Factor; Test Condition Q: Q-Factor (Test cond.); RDC max.: DC Resistance max.; IR: Rated Current; fres: Self Resonant Frequency

Size 0603

Order Code	L (nH)	Tol. L	Test Condition L (MHz)	Q	Test Condition Q (MHz)	R _{DC max} (mΩ)	I _R (mA)	f _{res} (MHz)	
7447610139	39	±5%	7.9	12	7.9	42	1910	2320	
7447610168	68			13		50	1650	1925	
7447610211	110					78	1230	1925	
7447610215	150					90	1170	1885	
7447610220	200					105	1100	1730	
7447610224	240					180	810	1345	
7447610227	270					165	790	1540	
7447610236	360					185	770	1040	
7447610242	420					255	670	1110	
7447610256	560					270	640	915	
7447610260	600					380	545	1000	
7447610282	820					450	470	830	
7447610310	1000					700	375	680	
7447610315	1500					1070	240	605	
7447610322	2200			400		575	110		
7447610333	3300			14		950	350	110	
7447610347	4700					1125	300	67	
7447610356	5600					1055	315	62	
7447610368	6800					1380	280	52	
7447610382	8200					1550	250	46	
7447610410	10000					2.5	13	2.5	1700
7447610415	15000		3900		155				30

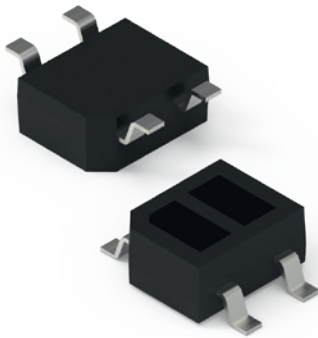
L: Inductance; Tol. L: Inductance (Tol.); Test Condition L: Inductance (Test cond.); Q: Q-Factor; Test Condition Q: Q-Factor (Test cond.); RDC max.: DC Resistance max.; IR: Rated Current; fres: Self Resonant Frequency



Check the complete series
www.we-online.com/we-rfi

WL-OSEN

OPTICAL SENSOR - REFLECTIVE



Characteristics

- 1 mm typical detection distance
- Low energy consumption
- Compact size
- Daylight filter

Applications

- Optical switch
- Optical interlock
- Object detection
- Touch applications

Low energy consumption
& compact size

Size 2016

Order Code	d _{min.} (mm)	d _{max.} (mm)	V _{F typ.} (V)	V _{F max.} (V)	I _{CE.P min.} (mA)	I _{CE.P typ.} (mA)
1692010961200	0.5	10	1.7	2.5	0.5	2

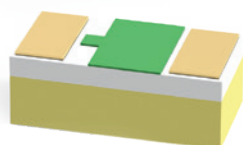
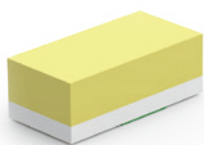
d_{min.}: Distance [min.]; d_{max.}: Distance [max.]; V_{F typ.}: Forward Voltage [typ.]; V_{F max.}: Forward Voltage [max.];
I_{CE.P min.}: Collector Current [min.]; I_{CE.P typ.}: Collector Current [typ.]

Size 2734

Order Code	d _{min.} (mm)	d _{max.} (mm)	V _{F typ.} (V)	V _{F max.} (V)	I _{CE.P min.} (mA)	I _{CE.P typ.} (mA)
1642730961200	0.2	5	1.2	1.6	0.1	0.3

d_{min.}: Distance [min.]; d_{max.}: Distance [max.]; V_{F typ.}: Forward Voltage [typ.]; V_{F max.}: Forward Voltage [max.];
I_{CE.P min.}: Collector Current [min.]; I_{CE.P typ.}: Collector Current [typ.]





Characteristics

- Small LED package for exceptional brightness
- 0402 industry standard footprint
- High reliability PCB based
- Compatible to IR reflow soldering

Applications

- LED Front panel indicator
- Navigation systems
- Cellphone display
- Display for industrial control systems
- Traffic display
- Miniaturized color effects
- LCD backlighting for LCD, push button, symbol and keypad

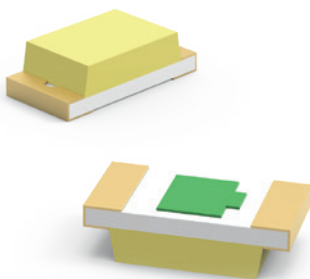
True white light
in a single chip LED

Size 0402

Order Code	Emitting Color	c_x typ.	c_y typ.	I_V typ. (mcd)	V_F typ. (V)	$2\theta_{50\%}$ typ. (°)	Chip Technology
150040WS73240	White	0.3	0.3	300	2.8	140	InGaN

c_x typ.: Chromaticity Coordinate X [typ.]; c_y typ.: Chromaticity Coordinate Y [typ.]; I_V typ.: Luminous Intensity [typ.];
 V_F typ.: Forward Voltage [typ.]; $2\theta_{50\%}$ typ.: Viewing Angle Phi 0° [typ.]





Characteristics

- Low energy consumption
- High reliability
- Low current requirement
- Fast switching
- No UV/IR radiation
- Smallest SMT LED package for exceptional brightness
- Top view LED
- Wide viewing angle
- Better solder ability
- Heat dissipation

Applications

- Backlight for mobile and portable device keypads
- Indoor and outdoor message boards
- Flat backlight for LCDs, switches and symbols
- Display for industrial control systems and traffic
- Miniaturized color effects
- Pedestrian mark
- Optical indicators

True white light
in a single chip LED

Size 0603

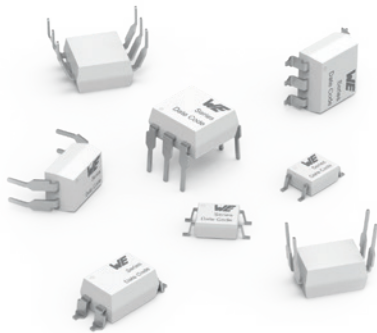
Order Code	Emitting Color	c_x typ.	c_y typ.	I_V typ. (mcd)	V_F typ. (V)	$2\theta_{50\%}$ typ. (°)	Chip Technology
150060WS75000	White	0.3	0.3	250	2.8	140	InGaN

c_x typ.: Chromaticity Coordinate X [typ.]; c_y typ.: Chromaticity Coordinate Y [typ.]; I_V typ.: Luminous Intensity [typ.];
 V_F typ.: Forward Voltage [typ.]; $2\theta_{50\%}$ typ.: Viewing Angle Phi 0° [typ.]



WL-OCTR

OPTOCOUPLER TRIAC



Characteristics

- Zero-Cross and Non-Zero Cross (Random Phase) Type
- Different trigger currents and peak off-state voltages available
- High isolation voltage
- VDE, UL and CQC certified

Applications

- White goods
- AC motor drivers
- Industrial controls
- Static power switches
- Temperature controls
- Light controls

Zero-Cross and Non-Zero Cross (Random Phase) available

DIP 4 Zero Cross

Order Code	Package	I _{FT} (mA)	V _{F typ.} (V)	V _{DRM} (V)	V _{ISO} (V (RMS))	Operating Temperature (°C)
14230414010	Standard	15	1.24	400	5000	-40 °C up to +100 °C
14230424010		10				
14230434010		5				
14230614010		15				
14230624010		10				
14230634010		5				
14230414110	M-Type	15		400		
14230424110		10				
14230434110		5				
14230614110		15		600		
14230624110		10				
14230634110		5				
14230414300	SL-Type	15		400		
14230424300		10				
14230434300		5				
14230614300		15		600		
14230624300		10				
14230634300		5				

I_{FT} : LED Trigger current [max.]; $V_{F typ.}$: Forward Voltage [typ.]; V_{DRM} : Repetitive peak off-state voltage; V_{ISO} : Isolation Voltage

DIP 4 Random Phase

Order Code	Package	I _{FT} (mA)	V _{F typ.} (V)	V _{DRM} (V)	V _{ISO} (V (RMS))	Operating Temperature (°C)
14230214010	Standard	15	1.24	400	5000	-40 °C up to +100 °C
14230224010		10				
14230234010		5				
14230514010		15				
14230524010		10				
14230534010		5				
14230214110	M-Type	15		400		
14230224110		10				
14230234110		5				
14230514110		15				
14230524110		10				
14230534110		5				
14230224300	SL-Type	10	400			
14230234300		5				
14230514300		15				
14230524300		10				
14230534300		5				
				600		

I_{FT} : LED Trigger current [max.]; $V_{F\ typ.}$: Forward Voltage [typ.]; V_{DRM} : Repetitive peak off-state voltage; V_{ISO} : Isolation Voltage

DIP 6 Zero Cross

Order Code	Package	I _{FT} (mA)	V _{F typ.} (V)	V _{DRM} (V)	V _{ISO} (V (RMS))	Operating Temperature (°C)
14230316011	Standard	15	1.24	250	5000	-40 °C up to +100 °C
14230326011		10				
14230336011		5				
14230416011		15		400		
14230426011		10				
14230436011		5				
14230616011		15		600		
14230626011		10				
14230636011		5				
14230316111		M-Type		15		
14230326111	10					
14230336111	5					
14230416111	15			400		
14230426111	10					
14230436111	5					
14230616111	15			600		
14230626111	10					
14230636111	5					
14230316301	SL-Type			15		
14230326301		10				
14230336301		5				
14230416301		15	400			
14230426301		10				
14230436301		5				
14230616301		15	600			
14230626301		10				
14230636301		5				

I_{FT} : LED Trigger current [max.]; $V_{F\ typ.}$: Forward Voltage [typ.]; V_{DRM} : Repetitive peak off-state voltage; V_{ISO} : Isolation Voltage

DIP 6 Random Phase

Order Code	Package	I _{FT} (mA)	V _{F typ.} (V)	V _{DRM} (V)	V _{ISO} (V (RMS))	Operating Temperature (°C)
14230116011	Standard	15	1.24	250	5000	-40 °C up to +100 °C
14230126011		10				
14230136011		5				
14230216011		15		400		
14230226011		10				
14230236011		5				
14230516011		15		600		
14230526011		10				
14230536011		5				
14230116111	M-Type	15		250		
14230126111		10				
14230136111		5				
14230216111		15		400		
14230226111		10				
14230236111		5				
14230516111		15		600		
14230526111		10				
14230536111		5				
14230116301	SL-Type	15		250		
14230126301		10				
14230136301		5				
14230216301		15		400		
14230226301		10				
14230236301		5				
14230516301		15		600		
14230526301		10				
14230536301		5				

I_{FT} : LED Trigger current [max.]; $V_{F\ typ.}$: Forward Voltage [typ.]; V_{DRM} : Repetitive peak off-state voltage; V_{ISO} : Isolation Voltage

SOP 4 Zero Cross

Order Code	Package	I _{FT} (mA)	V _{F typ.} (V)	V _{DRM} (V)	V _{ISO} (V (RMS))	Operating Temperature (°C)
14230414500	Standard	15	1.24	400	3750	-40 °C up to +100 °C
14230424500		10				
14230434500		5				
14230614500		15		600		
14230624500		10				
14230634500		5				

I_{FT} : LED Trigger current [max.]; $V_{F\ typ.}$: Forward Voltage [typ.]; V_{DRM} : Repetitive peak off-state voltage; V_{ISO} : Isolation Voltage

SOP 4 Random Phase

Order Code	Package	I_{FT} (mA)	$V_{F typ.}$ (V)	V_{DRM} (V)	V_{ISO} (V (RMS))	Operating Temperatur (°C)
14230124500	Standard	10	1.24	250	3750	-40 °C up to +100 °C
14230134500		5				
14230214500		15				
14230224500		10		400		
14230234500		5				
14230514500		15				
14230524500		10		600		
14230534500		5				

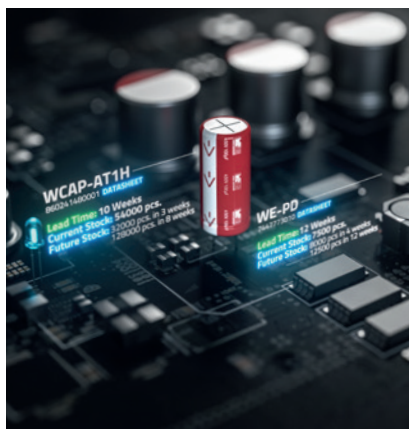
I_{FT} : LED Trigger current [max.]; $V_{F typ.}$: Forward Voltage [typ.]; V_{DRM} : Repetitive peak off-state voltage; V_{ISO} : Isolation Voltage



Check the complete series
www.we-online.com/wl-octr

CUSTOMER API

STAY AHEAD. CONNECT VIA API.



With an API (Application Programmable Interface) two software systems can be connected with each other. We have developed a REST API for our customers, which enables a flexible connection to their systems.

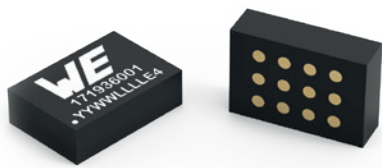
- Use our API service for the area components and save valuable time by automating data queries
- With our customized API interfaces, you no longer have to search for or request information about our products
- Display data directly and always up-to-date in your own ERP system
- The interface is customized to your needs - you only see the data you need



For more information
www.we-online.com/api

MAGI³C-VDMM

VARIABLE STEP DOWN MICROMODULE



Characteristics

- Low conducted and radiated EMI (compliant to EN55032 class B / CISPR-32)
- Spread spectrum for optimized EMI behaviour
- Very low profile micropackage LGA-12
- Ideal for space constrained applications
- For direct connection to 48 V industrial voltage network
- 2 solder cycles supported

Applications

- Point-of-Load DC/DC applications
- Replacement for linear regulators
- Interface and microcontroller supply
- DSP and FPGA power supply auxiliary voltages
- Industrial, testing and measurement technology
- Sensors

Ultra wide input range
from 3.5 - 60 V

Order Code	V _{IN} (V)	V _{OUT} (V)	I _{OUT} (A)	Version	Type	L (mm)	W (mm)	H (mm)
171936001	3.5 - 60	0.85 - 6	0.3	Mode Select	Overmolded	8	5.5	2.4

V_{IN}: Input Voltage; V_{OUT}: Output Voltage; I_{OUT}: Output Current; L: Length; W: Width; H: Height

Check the complete series
www.we-online.com/magic-vdmm



MyWE

YOUR CONNECTION TO US



With MyWE, you have an overview of all processes, 24 hours a day, 7 days a week. You can quickly and easily access all relevant data, request inquiries and place orders. Thanks to the clear design and your customizable dashboard, you can reach your destination with just a few clicks.

Shipment Tracking

- Overview of current and delivered shipments
- Information & all documents for download

Order Processing

- Overview of all inquiries, offers and orders
- Request inquiries and trigger orders

Product Overview

- Overview of all parts that have already been ordered
- Comprehensive information and documents on all products
- Personal favorites list

Knowledge Panel

- Links to interesting content and services from Würth Elektronik such as events, design tools, application notes and much more!

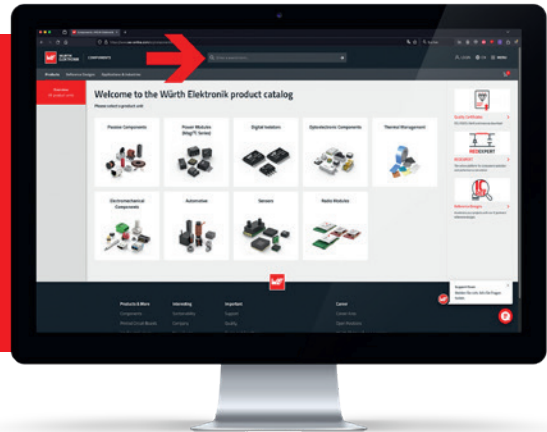


EMC COMPONENTS

HOW TO FIND DETAILED PRODUCT INFORMATION?

VISIT WWW.WE-ONLINE.COM AND SEARCH
FOR PRODUCT SERIES INFORMATION, E.G.:

WE-CBF



FERRITES FOR PCB ASSEMBLY



WE-TMSB

Z @ 100 MHz: 10 ~ 1800 Ω
I_{RZ}: 210 ~ 7500 mA
R_{DC}: 2.95 m Ω ~ 1.91 Ω



WE-CMS

Z @ 25 MHz: 20 ~ 54 Ω
Z @ 100 MHz: 30 ~ 83 Ω
I_R: 17 ~ 21 A
R_{DC max}: 3 m Ω



WE-CBF

Z @ 100 MHz: 5 ~ 2700 Ω
I_{RZ}: 450 ~ 10000 mA
R_{DC max}: 0.003 m Ω ~ 1.5 Ω



WE-SUKW

Z @ 25 MHz: 272 ~ 425 Ω
Z @ 100 MHz: 416 ~ 580 Ω
I_R: 8.5 ~ 9 A
R_{DC max}: 11 ~ 12 m Ω



WE-CBF HF

Z @ 1 GHz: 180 ~ 1100 Ω
I_{RZ}: 250 ~ 1300 mA
R_{DC typ}: 0.13 ~ 1.2 Ω



WE-UKW

Z @ 25 MHz: 145 ~ 920 Ω
Z @ 100 MHz: 230 ~ 1240 Ω
I_R: 3 A



WE-MPSB

Z @ 100 MHz: 8 ~ 600 Ω
I_{RZ}: 2100 ~ 10500 mA
R_{DC typ}: 1.0 ~ 43 m Ω



WE-MLS

Z @ 25 MHz: 115 ~ 292 Ω
Z @ 100 MHz: 150 ~ 334 Ω
I_R: 4 A



WE-PBF

Z @ 25 MHz: 23 ~ 65 Ω
Z @ 100 MHz: 39 ~ 98 Ω
I_R: 14 ~ 18 A
R_{DC max}: 0.6 ~ 0.9 m Ω



WE-WAFB

Z @ 10 MHz: 20 ~ 65 Ω
Z @ 100 MHz: 70 ~ 130 Ω
I_R: 3 ~ 7 A



WE-PF

Z_{max}: 2900 ~ 15000 Ω
I_R: 4.5 ~ 10 A
R_{DC max}: 9 ~ 30 m Ω



WE-RFI

Z @ 25 MHz: 450 ~ 1600 Ω
Z @ 100 MHz: 11 ~ 2300 Ω
I_{RZ}: 110 ~ 1910 mA



WE-STAR-BUENO

Z @ 25 MHz 1 turn: 117 ~ 171 Ω
Z @ 100 MHz 1 turn: 202 ~ 340 Ω
Cable Diameter: 2.5 ~ 8.5 mm



WE-STAR-TEC LFS

Z @ 1 MHz 1 turn: 17 ~ 70 Ω
Z @ 10 MHz 1 turn: 27 ~ 59 Ω
Cable Diameter: 2.0 ~ 25 mm



WE-STAR-TEC

Z @ 25 MHz 1 turn: 92 ~ 270 Ω
Z @ 100 MHz 1 turn: 178 ~ 420 Ω
Cable Diameter: 2.0 ~ 25 mm



WE-STAR-GAP

Z @ 25 MHz 1 turn: 28 ~ 35 Ω
Z @ 500 MHz 1 turn: 345 ~ 400 Ω
Cable Diameter: 4.5 ~ 12.5 mm



WE-STAR-RING

Z @ 25 MHz 1 turn: 54 ~ 75 Ω
Z @ 100 MHz 1 turn: 103 ~ 184 Ω
Cable Diameter: 8 ~ 27 mm



WE-STAR-FLAT

Z @ 25 MHz 1 turn: 47 ~ 96 Ω
Z @ 100 MHz 1 turn: 103 ~ 184 Ω
No. of Poles: 26 ~ 50



WE-STAR-CLIP

For the fixation of
Snap Ferrite STAR-TEC (LFS),
STAR-FIX (LFS) and STAR-GAP



WE-NCF

Z @ 25 MHz 1 turn: 48 ~ 100 Ω
Z @ 100 MHz 1 turn: 93 ~ 200 Ω
Cable Diameter: 7.8 ~ 26.5 mm

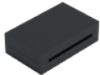
EMC COMPONENTS

FERRITES FOR CABLE ASSEMBLY



WE-SPLITRING

Z @ 25 MHz 1 turn: 98 ~ 306 Ω
Z @ 100 MHz 1 turn: 182 ~ 525 Ω
Cable Diameter: 3.5 ~ 25 mm



WE-SFA

Z @ 25 MHz 1 turn: 27 ~ 148 Ω
Z @ 100 MHz 1 turn: 57 ~ 267 Ω
No. of Poles: 10 ~ 64



WE-FLAT

Z @ 25 MHz 1 turn: 10 ~ 75 Ω
Z @ 100 MHz 1 turn: 31 ~ 174 Ω
Poles: 10 ~ 40
Version: Snap-On with adhesive tape



WE-FLAT Ferrite for Flexible Printed Circuit Boards

Z @ 25 MHz 1 turn: 7 ~ 71 Ω
Z @ 100 MHz 1 turn: 19 ~ 130 Ω
Cable Diameter: 4.7 ~ 52 mm
Version: round, square



WE-FCAC

Easy fixation for flat cores on ribbon cables



WE-TOF

Z @ 25 MHz 1 turn: 21 ~ 97 Ω
Z @ 100 MHz 1 turn: 36 ~ 156 Ω
Cable diameter: 3.0 ~ 55.3 mm



WE-AFB LFS

Z @ 1 MHz 1 turn: 38 ~ 136 Ω
Z @ 10 MHz 1 turn: 43 ~ 82 Ω
Cable diameter: 0.8 ~ 17.65 mm



WE-AFB

Z @ 25 MHz 1 turn: 23 ~ 290 Ω
Z @ 100 MHz 1 turn: 40 ~ 459 Ω
Cable diameter: 3.3 ~ 17.5 mm



WE-SAFB

Z @ 25 MHz 1 turn: 18 ~ 100 Ω
Z @ 100 MHz 1 turn: 33 ~ 148 Ω
Cable diameter: 0.55 ~ 4 mm



WE-RIB

Z @ 25 MHz 1 turn: 35 ~ 126 Ω
Z @ 100 MHz 1 turn: 91 ~ 260 Ω
Cable diameter: 0.8 ~ 3.5 mm



WE-MI

L: 0.047 ~ 33 μ H
I_B: 3 ~ 300 mA
R_{DC}: 0.15 ~ 2.1 Ω



WE-SD

L: 2 ~ 10 μ H
I_B: 2.5 ~ 15 A
R_{DC}: 1.7 ~ 33 m Ω



WE-FI

L: 8.2 ~ 860 μ H
I_B: 0.9 ~ 9 A
R_{DC}: 0.01 ~ 0.45 Ω

FILTER CHOKES

COMMON MODE CHOKES POWER LINES



WE-CMB

L: 0.5 ~ 39 mH
I_B: 0.3 ~ 35 A
R_{DC}: 2.3 ~ 3000 m Ω
Number of Windings: 2



WE-CMBNC

L: 0.4 ~ 190 mH
I_B: 0.6 ~ 38 A
R_{DC}: 1.1 ~ 1000 m Ω
Number of Windings: 2



WE-CMB HC

L: 0.175 ~ 0.7 mH
I_B: 5 ~ 10 mA
R_{DC}: 4 ~ 15 m Ω
Number of Windings: 2



WE-CMB HV

L: 0.7 ~ 4.7 mH
I_B: 6.8 ~ 21.5 A
R_{DC}: 3.8 ~ 44 m Ω
Number of Windings: 2



WE-CMB NiZn

L: 14 ~ 110 μ H
I_B: 1.5 ~ 10 A
R_{DC}: 2.7 ~ 80 m Ω
Number of Windings: 2



WE-ExB

L: 47 ~ 1000 μ H
I_B: 4.5 ~ 15 A
R_{DC}: 4.6 ~ 42 m Ω
Number of Windings: 2



WE-CMBH

L: 1 ~ 20 mH
I_B: 2 ~ 15 A
R_{DC}: 7.5 ~ 230 m Ω
Number of Windings: 2

COMMON MODE CHOKES POWER LINES



WE-LF

L: 0.4 ~ 50 mH
 I_B : 0.3 ~ 6 A
 R_{DC} : 0.02 ~ 2.6 Ω
 Number of Windings: 2



WE-LF SMD

L: 0.7 ~ 47 mH
 I_B : 0.4 ~ 5.25 A
 R_{DC} : 0.03 ~ 2.6 Ω
 Number of Windings: 2



WE-TFC

L: 1.8 ~ 25 mH
 I_B : 0.25 ~ 1 A
 $R_{DC \max}$: 0.31 ~ 3.6 Ω
 Number of Windings: 2



WE-FC

L: 1.1 ~ 43 mH
 I_B : 0.4 ~ 2.65 A
 R_{DC} : 0.08 ~ 2.88 Ω
 Number of Windings: 2



WE-FCL

L: 3.9 ~ 100 mH
 I_B : 1.25 ~ 5 A
 R_{DC} : 50 ~ 900 m Ω
 Number of Windings: 2



WE-LPCC

L: 120 ~ 450 μ H
 I_B : 9.5 ~ 23.5 A
 $R_{DC \max}$: 1.4 ~ 9.6 m Ω
 Number of Windings: 2



WE-FCLP

L: 6 ~ 100 mH
 I_B : 0.5 ~ 2.4 A
 R_{DC} : 220 ~ 3470 m Ω
 Number of Windings: 2



WE-TPB

L: 0.52 ~ 12 mH
 I_B : 6 ~ 24 A
 R_{DC} : 3 ~ 65 m Ω
 Number of Windings: 3



WE-TPB HV

L: 0.2 ~ 208 mH
 I_B : 7.2 ~ 46 A
 R_{DC} : 1.6 ~ 85 m Ω
 Number of Windings: 3

COMMON MODE CHOKES SIGNAL LINES



WE-CNSW

Z @ 100 MHz: 22 ~ 8000 Ω
 I_B : 90 ~ 2000 mA
 R_{DC} : 0.05 ~ 5.5 Ω
 Number of Windings: 2



WE-CNSW HF

Z @ 100 MHz: 60 ~ 120 Ω
 I_B : 280 ~ 600 mA
 R_{DC} : 220 ~ 300 m Ω
 Number of Windings: 2



WE-CCMF

f_c : 8 ~ 12 GHz
 I_B : 300 mA
 Common mode Attenuation @ 2450 MHz: 20 ~ 30 dB



WE-CMDC

Z @ 100 MHz: 700 ~ 1500 Ω
 I_B : 4.5 ~ 8 A
 R_{DC} : 6 ~ 21 m Ω
 Number of Windings: 2



WE-SLM

L: 11 ~ 470 μ H
 I_B : 300 ~ 400 mA
 R_{DC} : 0.18 ~ 0.58 Ω
 Number of Windings: 2



WE-SL1

L: 10 ~ 330 μ H
 I_B : 300 mA
 R_{DC} : 0.16 ~ 0.3 Ω
 Number of Windings: 2



WE-SL2

L: 10 ~ 20000 μ H
 I_B : 200 ~ 1600 mA
 R_{DC} : 0.08 ~ 2.6 Ω
 Number of Windings: 2



WE-SL3

L: 20 ~ 100 μ H
 I_B : 450 ~ 700 mA
 R_{DC} : 0.14 ~ 0.45 Ω
 Number of Windings: 2 ~ 3



WE-SL5

L: 120 ~ 4700 μ H
 I_B : 350 ~ 2500 mA
 R_{DC} : 0.025 ~ 0.72 Ω
 Number of Windings: 2



WE-SL5 HC

L: 5 ~ 30 μ H
 I_B : 1.4 ~ 5 A
 R_{DC} : 0.0055 ~ 0.06 Ω
 Number of Windings: 2



WE-SL

L: 35 ~ 4700 μ H
 I_B : 200 ~ 2700 mA
 R_{DC} : 0.035 ~ 0.85 Ω
 Number of Windings: 2 ~ 4



WE-SCC

L: 1 ~ 1000 μ H
 I_B : 150 ~ 4750 mA
 R_{DC} : 0.01 ~ 4.3 Ω
 Number of Windings: 2



WE-UCF

L: 0.013 ~ 100 mH
 I_B : 0.15 ~ 10 A
 R_{DC} : 0.0027 ~ 8.5 Ω
 Number of Windings: 2

EMC COMPONENTS

ESD PROTECTION



WE-TVS Standard Series

Operating Voltage: 3.3 ~ 24 V_{DC}
 C_{typ}: 12 ~ 1650 pF
 Channels: 1 ~ 5
 Size: DFN1610-2L ~ SOT23-6L



WE-TVS High Speed

Operating Voltage: 3.3 ~ 5 V_{DC}
 C_{typ}: 1.2 ~ 3 pF
 Channels: 2+1 ~ 4+1
 Size: SOT563 ~ SOT23-6L



WE-TVS Super Speed

Operating Voltage: 3.3 ~ 5 V_{DC}
 C_{typ}: 0.18 ~ 0.55 pF
 Channels: 2 ~ 8
 Size: DFN1210-6L ~ MSOP-10L



WE-VE ULC

Operating Voltage: 5 ~ 12 V_{DC}
 C_{typ}: 0.2 pF
 Size: 0402 ~ 0603



WE-VE

Operating Voltage: 5 ~ 24 V_{DC}
 C_{typ}: 1 ~ 100 pF
 Size: 0402 ~ 0805



WE-VE femtoF

Operating Voltage: 6 ~ 26 V_{DC}
 C_{typ}: 0.05 pF
 Size: 0402 ~ 0603



WE-VEA

Operating Voltage: 5 ~ 18 V_{DC}
 C_{typ}: 10 ~ 120 pF
 Size: 0508 ~ 0612

EMC SHIELDING SOLUTIONS

NEW



EMI Patch WE-EMIP

Hybrid material with absorber and metal layers, effective both against magnetic and electric fields



EMC Tapes

EMC tapes with copper tape, aluminum tape, conductive fabric
 Standard Roll Width: 5 ~ 50 mm



Board Level Shielding

WE-SHC & WE-SHC Seamless

Metal cabinets for board level shielding, ShieldDIY for prototyping, SMD & THT, frame & cover, one piece solution



EMC Gaskets (WE-CSGS, WE-EGS, WE-GS & WE-LT)

Contact spring gaskets, conductive elastomer gaskets, shielding gaskets.



Grounding (WE-SECF, WE-SMGS, WE-ST, WE-EEL)

SMD grounding contacts, grounding cables for earthing belts, cable shielding and metal clips



Magnetic Shielding WE-FAS, WE-FSFS, WE-CPU, WE-FAS TC

Absorber Sheets, Thermal Conductive & EMI Absorber Sheets, Flexible Ferrite Sheets, Ferrite Plates

LINE FILTERS



WE-CLFS Line Filter

I_p: 1.5 ~ 20 A
 Inductance: 1 ~ 20 mH
 R_{DC}: 10 ~ 300 mΩ
 Phase: 1

SURGE PROTECTION



WE-VS

Operating Voltage: 3.3 ~ 85 V_{DC}
 Operating Voltage: 2.5 ~ 60 V_{AC}
 I_{peak}: 10 ~ 200 A
 W_{max}: 0.02 ~ 1.1 J
 Size: 0402 ~ 1206



WE-TVSP

Operating Voltage: 5 ~ 440 V_{DC}
 I_{peak} (10/1000 μs): 0.6 ~ 326 A
 P_{loss}: 400, 600, 1500, 3000 W
 Size: DO-214AC: SMAJ
 DO-214AA: SMBJ
 DO-214AB: SMCJ, SMDJ



WE-VD

Operating Voltage: 14 ~ 1000 V_{AC}
 Operating Voltage: 18 ~ 1465 V_{DC}
 I_{peak}: 100 ~ 10000 A
 W_{max}: 0.7 ~ 620 J
 Diameters: 5 ~ 20 mm



All EMC Components at a glance:
www.we-online.com/emc-components



Explore our application notes for EMC Components:
www.we-online.com/appnotes



Component libraries available for:

- PCB library: Altium Designer, EAGLE, Cadence OrCAD & Allegro, Zuken CAD-Star
- S-Parameter & SPICE model: S-Parameter, LTspice, PSpice, Spectre
- RF & microwave simulation models: Modelithics

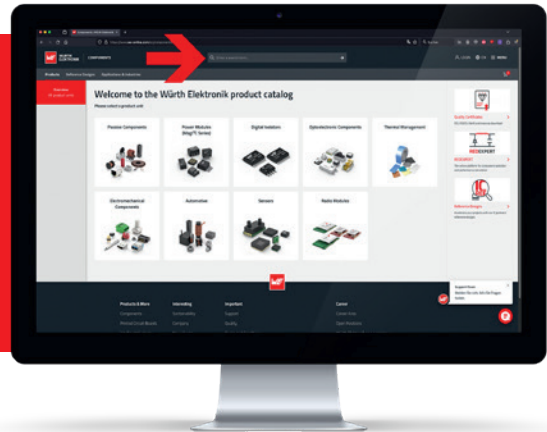
www.we-online.com/library

POWER MAGNETICS

HOW TO FIND DETAILED PRODUCT INFORMATION?

VISIT WWW.WE-ONLINE.COM AND SEARCH
FOR PRODUCT SERIES INFORMATION, E.G.:

WE-PD



SINGLE COIL POWER INDUCTORS

 WE-PMI L: 0.11 ~ 10 μ H I_{R2} : 650 ~ 4000 mA $R_{DC\ max}$: 8.75 ~ 625 m Ω I_{SAT} : 100 ~ 5000 mA	 WE-MAPI L: 0.033 ~ 47 μ H I_{R2} : 0.55 ~ 33.5 A $R_{DC\ typ}$: 0.9 ~ 2090 m Ω I_{SAT} : 1.5 ~ 40 A	 WE-PD4 L: 0.47 ~ 10000 μ H I_R : 0.07 ~ 18 A R_{DC} : 0.002 ~ 39 Ω I_{SAT} : 14.25 A
 WE-PMCI L: 0.24 ~ 2.2 μ H I_R : 2100 ~ 11050 mA R_{DC} : 17 ~ 180 m Ω I_{SAT} : 2400 ~ 15650 mA	 WE-TPC L: 0.056 ~ 1500 μ H I_R : 0.08 ~ 8.5 A R_{DC} : 0.0035 ~ 9 Ω I_{SAT} : 0.05 ~ 10 A	 WE-HCI L: 0.13 ~ 82 μ H I_R : 3.5 ~ 41.5 A R_{DC} : 0.35 ~ 34.5 m Ω I_{SAT} : 4 ~ 65 A
 WE-GF L: 0.1 ~ 1000 μ H I_R : 30 ~ 450 mA $R_{DC\ max}$: 0.32 ~ 50 Ω	 WE-SPC L: 0.22 ~ 100 μ H I_R : 0.40 ~ 5.30 A R_{DC} : 0.014 ~ 1.133 Ω I_{SAT} : 0.68 ~ 13.5 A	 WE-HCC L: 0.22 ~ 10 μ H I_{RP} : 4.4 ~ 48.2 A R_{typ} : 1.1 ~ 38.5 m Ω I_{SAT} : 8.3 ~ 177 A
 WE-GFH L: 1.0 ~ 220 μ H I_R : 160 ~ 1900 mA R_{DC} : 81 ~ 9126 m Ω	 WE-PD L: 0.47 ~ 2200 μ H I_{RP} : 0.28 ~ 27 A R_{DC} : 0.003 ~ 9.44 Ω I_{SAT} : 0.18 ~ 44 A	 WE-HCF L: 0.7 ~ 680 μ H I_R : 4.8 ~ 56 A R_{DC} : 0.44 ~ 118.3 m Ω I_{SAT} : 3 ~ 125 A
 WE-LQ L: 1 ~ 2200 μ H I_R : 0.04 ~ 1.8 A R_{DC} : 0.08 ~ 47 Ω	 WE-PDF L: 0.22 ~ 27 μ H I_R : 4.3 ~ 19 A R_{DC} : 1.95 ~ 42.5 m Ω I_{SAT} : 3.1 ~ 32 A	 WE-HCFT L: 1 ~ 65 μ H I_R : 17.2 ~ 75 A R_{DC} : 0.34 ~ 13.13 m Ω I_{SAT} : 8.8 ~ 125 A
 WE-LQS L: 0.16 ~ 10000 μ H I_R : 0.1 ~ 8 A R_{DC} : 6 ~ 22800 m Ω I_{SAT} : 140 ~ 16000 mA	 WE-PD2SR L: 1.2 ~ 220 μ H I_R : 0.67 ~ 4.85 A $R_{DC\ typ}$: 8.5 ~ 743 m Ω I_{SAT} : 0.58 ~ 6 A	 WE-HIDA L: 8.2 ~ 22 μ H I_R : 5.7 ~ 19 A R_{DC} : 2.5 ~ 14.8 m Ω I_{SAT} : 6.5 ~ 58 A
 WE-LQSH L: 0.47 ~ 10 μ H I_R : 0.58 ~ 4.5 A R_{DC} : 18 ~ 680 m Ω I_{SAT} : 0.95 ~ 15.5 A	 WE-PD2 L: 1 ~ 2200 μ H I_R : 0.18 ~ 6 A R_{DC} : 0.007 ~ 4.4 Ω I_{SAT} : 0.18 ~ 11 A	 WE-LHMD L: 8.2 ~ 22 μ H I_R : 2 ~ 7 A R_{typ} : 16 ~ 104 m Ω I_{SAT} : 13 ~ 25 A
 WE-LQFS L: 1.0 ~ 470 μ H I_R : 0.26 ~ 4.47 A R_{DC} : 18 ~ 2336 m Ω I_{SAT} : 0.18 ~ 4.06 A	 WE-PD3 L: 1 ~ 1000 μ H I_R : 0.19 ~ 3.9 A R_{DC} : 0.027 ~ 3.2 Ω I_{SAT} : 0.02 ~ 8 A	 WE-HCM L: 0.025 ~ 1.5 μ H I_{RP} : 23 ~ 70 A R_{DC} : 0.114 ~ 0.7 m Ω I_{SAT} : 9.3 ~ 125 A

POWER MAGNETICS

SINGLE COIL POWER INDUCTORS

NEW	WE-MXGI	L: 0.16 ~ 15 µH I _{TP} : 4.5 ~ 28.1 A R _{typ} : 1.5 ~ 64.5 mΩ I _{SAT} : 4.3 ~ 27.9 A
EXTENDED	WE-XHMI	L: 0.11 ~ 33 µH I _{TP} : 3.5 ~ 48.2 A R _{DC} : 1.32 ~ 75 mΩ I _{SAT} : 4.0 ~ 56 A
	WE-LHMI	L: 0.1 ~ 100 µH I _g : 1 ~ 32.5 A R _{DC} : 0.60 ~ 500 mΩ I _{SAT} : 2 ~ 125 A
	WE-FAMI	L: 3.0 ~ 22.0 µH I _g : 3.7 ~ 14.5 A R _{typ} : 3.1 ~ 30.9 mΩ I _{SAT} : 5.7 ~ 19.7 A
	WE-TI	L: 1 ~ 68000 µH I _g : 0.05 ~ 8.5 A R _{DC} : 0.006 ~ 90.8 Ω I _{SAT} : 0.07 ~ 15 A
	WE-TIS	L: 1.3 ~ 8200 µH I _g : 0.1 ~ 8.5 A R _{DC} : 0.006 ~ 12.5 Ω I _{SAT} : 0.05 ~ 14 A
	WE-SI	L: 12 ~ 1619 µH I _g : 1.1 ~ 14.5 A R _{DC} : 0.008 ~ 0.7 Ω I _{SAT} : 0.5 ~ 6.9 A
	WE-PD HV	L: 47 ~ 6800 µH I _g : 0.24 ~ 1.7 A R _{DC} : 0.16 ~ 9.6 Ω I _{SAT} : 0.2 ~ 2.3 A
	WE-PD2 HV	L: 560 ~ 2200 µH I _g : 0.15 ~ 0.41 A R _{DC} : 1.77 ~ 6 Ω I _{SAT} : 0.2 ~ 0.41 A
	WE-TI HV	L: 220 ~ 3300 µH I _g : 0.25 ~ 0.9 A R _{DC} : 0.5 ~ 5.9 Ω I _{SAT} : 0.27 ~ 1.3 A
	WE-HEPC	L: 3.3 ~ 100 µH I _g : 0.8 ~ 2.5 A R _{DC} : 0.05 ~ 0.8 Ω I _{SAT} : 1.3 ~ 3.3 A

DUAL COIL POWER INDUCTORS

	WE-EHPI	L ₁ : 7 ~ 25 µH L ₂ : 10000 ~ 70000 µH R _{DC1} : 0.085 ~ 0.2 Ω R _{DC2} : 42 ~ 205 Ω
	WE-TDC	L: 0.33 ~ 22 µH I _g : 0.7 ~ 4.5 A R _{DC} : 0.0111 ~ 0.435 Ω
	WE-DD	L: 1.3 ~ 470 µH I _g : 0.3 ~ 8.6 A R _{DC} : 0.011 ~ 1.4 Ω
	WE-DCT	L: 0.091 ~ 100 µH I _g : 1.1 ~ 14.5 A R _{DC} : 2.8 ~ 265 mΩ I _{SAT} : 1.1 ~ 14.5 A
	WE-CFWI	L: 0.8 ~ 10 µH I _g : 11.5 ~ 28 A R _{DC} : 1.6 ~ 13.9 mΩ I _{SAT} : 14.25 A
	WE-DPC	L: 1 ~ 100 µH I _g : 0.35 ~ 4.5 A R _{DC} : 25 ~ 1990 mΩ I _{SAT} : 14.25 A
	WE-MTCI	L ₁ : 10 ~ 33 µH L ₂ : 22.5 ~ 297 µH R _{DC1} : 349 ~ 1466 mΩ R _{DC2} : 408 ~ 3758 mΩ
	WE-DPC HV	L: 1 ~ 47 µH I _g : 0.6 ~ 2.9 A R _{DC} : 32 ~ 840 mΩ
	WE-TDC HV	L: 4.7 ~ 33 µH I _g : 0.75 ~ 2.45 A R _{DC} : 85 ~ 700 mΩ
	WE-MCRI	L: 1 ~ 47 µH I _g : 1.5 ~ 17 A R _{DC} : 4.5 ~ 312 mΩ

WIRELESS POWER TRANSMISSION

WE-WPCC Wireless Power Transmitter Coil	L: 2.8 ~ 24 µH Q: 30 ~ 220 I _g : 2.0 ~ 18 A R _{DC} : 10 ~ 255 mΩ
WE-WPCC Wireless Power Array	L: 6.4 ~ 12.5 µH µHQ: 100 ~ 145 I _g : 8.0 ~ 10.0 A R _{DC} : 38 ~ 56 mΩ
WE-WPCC Wireless Power Receiver Coil	L: 1.4 ~ 47.0 µH Q: 10 ~ 50 I _g : 0.40 ~ 5.0 A R _{DC} : 0.08 ~ 1200 Ω
WE-WPCC WPT / NFC Combination Coil	L ₁ : 6.3 ~ 24 µH L ₂ : 0.7 ~ 1.6 µH Q ₁ : 19 ~ 125 Q ₂ : 47 ~ 82 I _g : IR1 = 6 ~ 7.5 A IR2 = 2.6 ~ 50 A R _{DC1} : 0.048 ~ 0.4 Ω R _{DC2} : 0.03 ~ 0.1 Ω

PFC CHOKES

WE-PFC	L: 150 ~ 1800 µH I _g : 0.3 ~ 3.0 A R _{DC1} : 78 ~ 1550 mΩ R _{DC2} : 140 ~ 1200 mΩ
---------------	---

TOROIDAL PFC CHOKES

WE-TORPFC	L: 118 ~ 720 µH I _g : 9.8 ~ 24.5 A I _{SAT} : up to 100A
------------------	---

HIGH PERFORMANCE	1:1 HIGH VOLTAGE
CONSUMER	1:1 HIGH CURRENT
LOW PROFILE	HIGH VOLTAGE
HIGH CURRENT	1:N MULTI TURNS RATIO
SEPIC	THT INDUCTORS
CLASS D	ALL PURPOSE

POWER TRANSFORMERS



WE-FLEX

suitable for all switch mode power supply topologies like: Buck-Converter, Boost-Converter, SEPIC-Converter, Flyback-Converter, Forward-Converter and Push-Pull-Converter



WE-UNIT

U_i : 85 ~ 265 Vac
 U_{O1} : 5 ~ 24 V
 I_{O1} : 0.13 ~ 2.0 A



WE-FLEX+

suitable for all switch mode power supply topologies like: Buck-Converter, Boost-Converter, SEPIC-Converter, Flyback-Converter, Forward-Converter and Push-Pull-Converter



WE-GDT

L: 260 ~ 650 μ H
 R_{DC1} : 520 ~ 1200 m Ω
 R_{DC2} : 150 ~ 600 m Ω
 R_{DC3} : 170 ~ 600 m Ω



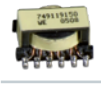
WE-FLEX HV

suitable for all switch mode power supply topologies like: Buck-Converter, Boost-Converter, SEPIC-Converter, Flyback-Converter, Forward-Converter and Push-Pull-Converter



WE-GDTI

L: 735 ~ 1800 μ H
 R_{DC1} : 1000 ~ 1600 m Ω
 R_{DC2} : 600 ~ 1300 m Ω
 R_{DC3} : 650 ~ 1300 m Ω



WE-PoE

suitable for Power over Ethernet ICs



WE-CST

for Switch Mode Power Supply and AC current detection



WE-PoE+

Compliant with the 30W PoE+ objectives of IEEE802.3at

Suitable for PoE+ powered devices



WE-CSTLF

AC low frequency 47-400 Hz high precision current sense measurement
 Primary current rating to 45 A
 Dielectric isolation 4 kV_{AC}
 Operating temperature -40 °C to +125 °C



WE-PoEH

- PoE and PoE+ powered devices
 - Flyback or Forward Transformer
 - designed for 12 V, 24 V or 48 V input of Switching Mode Power Supply



WE-AGDT

Input Voltage: 9 – 18 ~ 18 ~ 36 V
 Output Unipolar: 15 ~ 20 V
 Output Bipolar: +15 / -4 V
 Interwinding Capacitance: 6.8 pF
 Total Output Power: Up to 6 W



WE-FB

for LT3573, LT3751, LT3574, LT3575, LT3748



WE-PPTI

Low power push-pull applications
 V_{in} : 3.3V to 24V
 V_{out} : 2.5V to 30V
 I_{out} : Up to 2000mA
 ET: Up to 100V μ Sec



WE-UOST

U_i : 85 ~ 265 V_{AC}
 U_{O1} : 5 ~ 24 V
 I_{O1} : 0.56 ~ 3.0 A



WE-LLCR

U_i : 360 ~ 400 Vdc
 U_o : 12, 24 or 48 Vdc
 P: 150, 200 or 250 W



Learn more about WE-MXGI,
 the innovative power inductor:
www.we-online.com/we-mxgi



Explore our application notes for
 Power Magnetics:
www.we-online.com/apnnotes



All Power Magnetic Components
 at a glance:
www.we-online.com/power-magnetics



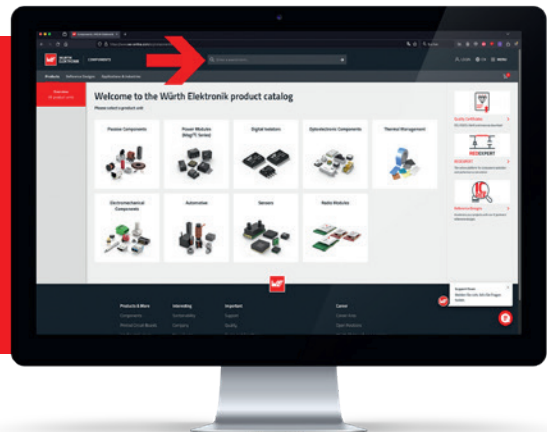
Component libraries available for:
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 ■ S-Parameter & SPICE model: S-Parameter, LTspice, PSpice, Spectre
 ■ RF & microwave simulation models: Modelithics
www.we-online.com/library

SIGNAL & COMMUNICATIONS

HOW TO FIND DETAILED PRODUCT INFORMATION?

VISIT WWW.WE-ONLINE.COM AND SEARCH
FOR PRODUCT SERIES INFORMATION, E.G.:

WE-ASI



AS-INTERFACE INDUCTOR



WE-ASI

L: 3 ~ 18.0 mH
I_g: 0.08 ~ 0.5 A
R_{DC}: 2.9 ~ 57.7 Ω

LAN TRANSFORMERS



WE-LAN

Data rate: 10/100/1000/2.5G/5GBASE-T
Ports: 1 ~ 4
Temp. Range: -40 up to +125 °C
PoE: PoE (up to 2 A per center tap)



WE-LAN 10G

Data rate: 10GBASE-T
Ports: 1
Temp. Range: -40 up to +85 °C
PoE: PoE (up to 1.5 A per center tap)



WE-LAN AQ

Data rate: 10/100/1000BASE-T
Ports: 1
Temp. Range: -40 up to +85 °C
PoE: PoE (up to 720 mA per center tap)



WE-RJ45 LAN

Data rate: 10/100/1000BASE-T
Ports: 1x1 ~ 1x2 ~ 2x4
Temp. Range: -40 up to +85 °C
PoE: PoE (up to 1 A per center tap)



WE-RJ45 LAN 10G

Data rate: 10GBASE-T
Ports: 1
Temp. Range: -40 up to +85 °C
PoE: 350 ~ 1000 mA



WE-STST

Data rate (Standard Ethernet): 10/100/1000/10GBASE-T
Data rate (Single Pair Ethernet): 10/100/1000BASE-T1
Temp. Range: -40 up to +105 °C
PoE: PoE (up to 600 mA)



WE-LANMX

Data rate: 10/100BASE-T
Code: D
Temp. Range: -40 up to +85 °C
PoE: non-PoE

FILTER SOLUTIONS



WE-EPLE

USB-A connector with integrated
circuit protection device and EMI
noise reduction

EXTENDED



WE-BMS

Working voltage: 1000 ~ 1500 V_{DC}
Temp. Range: -40 up to +125 °C
Creepage: 4 to 15 mm
Qualification: AEC-Q200

NEW



WE-PLC

Insulation Test Voltage: 4500 V_{AC}
Ports: 1
Temp. Range: -40 up to +125 °C



D-SUB Filter Connectors

Bent 90°, solder cup, solder pin straight,
filter adapter

RF INDUCTORS



WE-KI

L ($\pm 2\%$ or $\pm 5\%$): 1 ~ 1800 nH
 Q: 13 ~ 60
 SRF: 188 ~ 12500 MHz
 I_R : 100 ~ 1360 mA
 Sizes: 0402, 0603, 0805, 1008



WE-KI HC

L ($\pm 2\%$): 1 ~ 390 nH
 Q: 10 ~ 46
 SRF: 880 ~ 16000 MHz
 I_R : 170 ~ 2300 mA
 Sizes: 0402, 0603

EXTENDED



WE-RFI

L ($\pm 5\%$): 0.02 ~ 47 μ H
 Q: 11 ~ 45
 SRF: 17 ~ 7720 MHz
 I_R : 45 ~ 1910 mA
 Sizes: 0402, 0603, 0805, 1008



WE-RFH

L ($\pm 5\%$): 0.47 ~ 10 μ H
 Q: 15 ~ 45
 SRF: 40 ~ 450 MHz
 I_R : 300 ~ 760 mA
 Sizes: 1008



WE-TCI

L (± 0.1 nH or 2%): 1 ~ 27 nH
 Q: 8 ~ 13
 SRF: 2800 ~ 9000 MHz
 I_R : 75 ~ 700 mA
 Sizes: 0201, 0402



WE-MK

L ($\pm 2\%$ or $\pm 5\%$): 1 ~ 470 nH
 Q: 4 ~ 18
 SRF: 300 ~ 10000 MHz
 I_R : 110 ~ 1300 mA
 Sizes: 0201, 0402, 0603, 0805



WE-CAIR

L ($\pm 2\%$ or $\pm 5\%$): 1.65 ~ 538 nH
 Q: 100 ~ 140
 SRF: 0.49 ~ 12.5 GHz
 I_R : 1.5 ~ 4 A
 Sizes: 1322, 1340, 3136, 3168, 4248, 5910



WE-AC HC

L ($\pm 20\%$): 22 ~ 146 nH
 Q_{typ} : 163 ~ 280
 S_{RFtyp} : 332 ~ 867 MHz
 I_R : 19 ~ 40 A
 Sizes: 1010, 1212

SIGNAL FILTERS



WE-LPF

Low-Pass Filter
 Frequency Range: 902 ~ 5875 MHz
 Sizes: 0603, 0805



WE-BPF

Band-Pass Filter
 Frequency Range: 2400 ~ 5920 MHz
 Sizes: 0805, 1008

BALUN



WE-BAL

Balun
 Frequency Range: 2400 ~ 5875 MHz
 Sizes: 0603, 0805

ANTENNAS



WE-MCA

Multilayer Chip Antenna
 Frequency Range: 423 ~ 5875 MHz



All Signal & Communications
 Components at a glance:
www.we-online.com/signal-com



Explore our application notes for
 Signal & Communications:
www.we-online.com/appnotes



Component libraries available for:

- PCB library: Altium Designer, EAGLE, Cadence OrCAD & Allegro, Zuken CAD-Star
- S-Parameter & SPICE model: S-Parameter, LTSpice, PSpice, Spectre
- RF & microwave simulation models: Modelithics

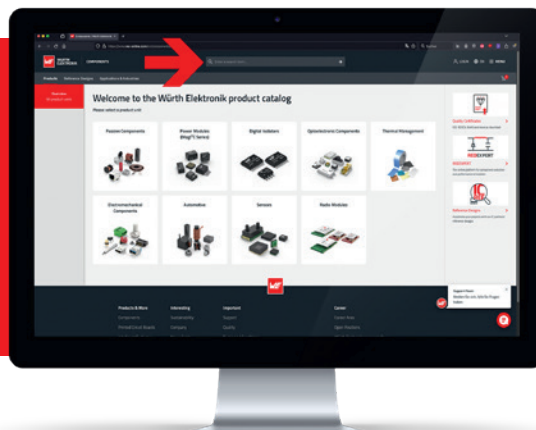
www.we-online.com/library

QUARTZ CRYSTALS & OSCILLATORS

HOW TO FIND DETAILED PRODUCT INFORMATION?

VISIT WWW.WE-ONLINE.COM AND SEARCH
FOR PRODUCT SERIES INFORMATION, E.G.:

WE-XTAL



QUARTZ CRYSTALS



WE-XTAL

Frequency: 1.8432 – 50 MHz
Tolerance: $\pm 7 - \pm 50$ ppm
Stability: $\pm 10 - \pm 100$ ppm
Load Capacitance: 5 – 30 pF
Size: 1.2 x 1.0 mm – 13.4 x 4.9 mm



WE-XTAL (Watch)

Frequency: 32.7680 kHz
Load Capacitance: 4 – 12.5 pF
Size: 1.2 x 1.0 mm – 9.5 x 2.54 mm

CRYSTAL OSCILLATORS



WE-SPXO

Frequency: 32.768 kHz,
3.6864 – 156.25 MHz
Stability: $\pm 25 - \pm 100$ ppm
Supply Voltage: 1.8 V, 2.5 V, 3.3 V, 5 V
Output Logic: CMOS, HCMOS,
HCMOS/TTL, LVDS, LVPECL
Size: 2.0 x 1.6 mm – 7.0 x 5.0 mm



All Frequency Products at a glance:
[www.we-online.com/
frequency-products](http://www.we-online.com/frequency-products)



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- PCB library: Altium Designer, EAGLE, Cadence OrCAD & Allegro, Zuken CAD-Star
- S-Parameter & SPICE model: S-Parameter, LTspice, PSpice, Spectre
- RF & microwave simulation models: Modelithics

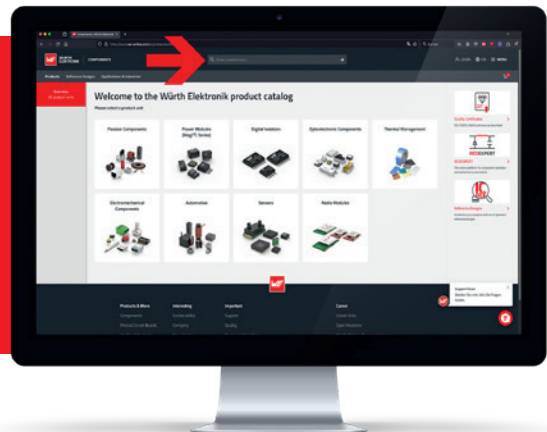
www.we-online.com/library

CAPACITORS

HOW TO FIND DETAILED PRODUCT INFORMATION?

VISIT WWW.WE-ONLINE.COM AND SEARCH
FOR PRODUCT SERIES INFORMATION, E.G.:

WCAP-ATG8



ALUMINUM ELECTROLYTIC CAPACITORS RADIAL THT



WCAP-ATG8

General Purpose +85 °C

C: 0.47 – 33000 μ F
UR: 10 – 400 V_{DC}
Temp.: -40 °C or -25 °C up to +85 °C
Endurance: 2000 h



WCAP-ATG5

General Purpose +105 °C

C: 0.47 – 18000 μ F
UR: 10 – 400 V_{DC}
Temp.: -40 °C or -25 °C up to +105 °C
Endurance: 2000 h



WCAP-AT1H

Long Life

C: 6.8 – 3300 μ F
UR: 10 – 450 V_{DC}
Temp.: -40 °C or -25 °C up to +105 °C
Endurance: 5000 – 10000 h



WCAP-ATET

High Temperature +125 °C

C: 1.0 – 1000 μ F
UR: 10 – 350 V_{DC}
Temp.: -40 °C or -25 °C up to +125 °C
Endurance: 1000 – 3000 h



WCAP-ATLI

Low Impedance

C: 4.7 – 6800 μ F
UR: 10 – 100 V_{DC}
Temp.: -55 °C up to +105 °C
Endurance: 2000 – 5000 h



WCAP-ATUL

Low Leakage & Long Life

C: 22 – 10000 μ F
UR: 10 – 100 V_{DC}
Temp.: -40 °C up to +105 °C
Endurance: 4000 – 10000 h



WCAP-ATLL

Long Life

C: 0.47 – 6800 μ F
UR: 10 – 50 V_{DC}
Temp.: -55 °C up to +105 °C
Endurance: 4000 – 10000 h

ALUMINUM ELECTROLYTIC CAPACITORS V-CHIP SMT



WCAP-ASLI

Low Impedance

C: 0.47 – 6800 μ F
UR: 6.3 – 100 V_{DC}
Temp.: -55 °C up to +105 °C
Endurance: 2000 – 5000 h



WCAP-ASLL

Low Impedance & Long Life

C: 1.0 – 6800 μ F
UR: 6.3 – 450 V_{DC}
Temp.: -55 °C or -40 °C up to +105 °C
Endurance: 2000 – 5000 h



WCAP-ASLU

Low Leakage Current

C: 0.47 – 330 μ F
UR: 6.3 – 63 V_{DC}
Temp.: -40 °C up to +85 °C
Endurance: 1000 – 2000 h



WCAP-ASNP

Non-Polar

C: 0.47 – 560 μ F
UR: 6.3 – 50 V_{DC}
Temp.: -40 °C up to +85 °C
Endurance: 2000 h



WCAP-AS5H

Long Life

C: 0.47 – 1000 μ F
UR: 6.3 – 50 V_{DC}
Temp.: -55 °C or -40 °C up to +105 °C
Endurance: 5000 h

ALUMINUM ELECTROLYTIC CAPACITORS SNAP-IN



WCAP-AIG8

General Purpose +85 °C

C: 47 – 6800 μ F
UR: 63 – 450 V_{DC}
Temp.: -40 °C or -25 °C up to +85 °C
Endurance: 2000 h



WCAP-AIE8

Long Life

C: 68 – 6800 μ F
UR: 63 – 450 V_{DC}
Temp.: -40 °C or -25 °C up to +85 °C
Endurance: 3000 h



WCAP-AIG5

General Purpose +105 °C

C: 33 – 10000 μ F
UR: 63 – 450 V_{DC}
Temp.: -40 °C or -25 °C up to +105 °C
Endurance: 2000 h



WCAP-AI3H

Long Life

C: 68 – 10000 μ F
UR: 63 – 450 V_{DC}
Temp.: -40 °C or -25 °C up to +105 °C
Endurance: 3000 – 4000 h

CAPACITORS

ALUMINUM POLYMER CAPACITORS RADIAL THT



WCAP-PTG5 General Purpose +105 °C

C: 39 – 2000 μ F
 U_R : 6.3 – 25 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 2000 h



WCAP-PTHR Low ESR & High Voltage

C: 10 – 150 μ F
 U_R : 35 – 100 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 2000 h



WCAP-PTHT High Temperature +125 °C

C: 22 – 2000 μ F
 U_R : 6.3 – 50 V_{DC}
 Temp. Range: -55 °C up to +125 °C
 Endurance: 2000 h



WCAP-PT5H Long Life

C: 22 – 2000 μ F
 U_R : 6.3 – 35 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 5000 h

ALUMINUM POLYMER CAPACITORS V-CHIP SMT



WCAP-PSLC Large Capacitance

C: 10 – 2000 μ F
 U_R : 6.3 – 100 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 2000 h



WCAP-PSLP Low Profile

C: 4.7 – 390 μ F
 U_R : 6.3 – 100 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 2000 h



WCAP-PSHP High Ripple Current

C: 6.8 – 1200 μ F
 U_R : 6.3 – 100 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 2000 – 5000 h

ALUMINUM POLYMER CAPACITORS H-CHIP SMT DIELECTRIC: POLYPROPYLENE



WCAP-PHGP General Purpose

C: 100 – 560 μ F
 U_R : 2 – 6.3 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 2000 h



WCAP-PHLE Low ESR

C: 100 – 560 μ F
 U_R : 2 – 6.3 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 2000 h



WCAP-PHSE Super Low ESR

C: 330 – 560 μ F
 U_R : 2 – 2.5 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 2000 h

ALUMINIUM HYBRID POLYMER CAPACITORS RADIAL THT



WCAP-HTG5 General Purpose

C: 10 – 470 μ F
 U_R : 16 – 100 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 5000 – 10000 h



WCAP-HTAH High Temperature

C: 10 – 560 μ F
 U_R : 16 – 100 V_{DC}
 Temp. Range: -55 °C up to +125 °C
 Endurance: 2000 – 4000 h

MLCCS – MULTILAYER CERAMIC CHIP CAPACITORS SMT-CHIP



WCAP-CSGP General Purpose

C: 0.5 pF – 100 μ F
 U_R : 6.3 – 100 V_{DC}
 Ceramic: NPO, X7R, X5R



WCAP-CSMH Mid and High Voltage

C: 10 pF – 2.2 μ F
 U_R : 200 – 3.000 V_{DC}
 Ceramic: NPO, X7R



WCAP-CSRF High Frequency

C: 0.2 pF – 33 pF
 U_R : 25 – 50 V_{DC}
 Ceramic: NPO



WCAP-SSST Soft Termination

C: 220 pF – 2.2 μ F
 U_R : 16 – 2.000 V_{DC}
 Ceramic: X7R

DC FILM CAPACITORS BOXED THT



WCAP-FTBP Boxed Type Metallized Polypropylene

C: 33 nF – 6.8 μ F
 U_R : 160 – 630 V_{DC}
 Pitch: 7.5 / 10.0 / 15.0 / 22.5 / 27.5 mm
 Dielectric: Polypropylene



WCAP-FTBE Boxed Type Metallized Polyester

C: 10 nF – 6.8 μ F
 U_R : 100 – 1.000 V_{DC}
 Pitch: 7.5 / 10.0 / 15.0 / 22.5 / 27.5 / 37.5 mm
 Dielectric: Polyester



WCAP-FTDB DC-Link (MKP)

C: 1 – 75 μ F
 U_R : 500 – 1.200 V_{DC}
 Pitch: 27.5 / 37.5 / 52.5 mm

ALUMINIUM HYBRID POLYMER CAPACITORS V-CHIP SMT



WCAP-HSG5 General Purpose

C: 10 – 560 μ F
 U_R : 16 – 100 V_{DC}
 Temp. Range: -55 °C up to +105 °C
 Endurance: 10000 h



WCAP-HSAH High Temperature

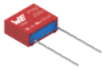
C: 10 – 800 μ F
 U_R : 16 – 100 V_{DC}
 Temp. Range: -55 °C up to +125 °C
 Endurance: 4000 h

**SAFETY CAPACITORS (X/Y)
FILM CAPACITORS
BOXED THT**



**WCAP-FTXX
X2-Capacitors**

C: 5.6 nF – 6.8 μ F
 U_R : 310 V_{AC}
 Pitch: 7.5 / 10.0 / 12.5 / 15.0 / 22.5 /
 27.5 / 37.5 mm
 Safety class: X2



**WCAP-FTX2
X2-Capacitors**

C: 5.6 nF – 6.8 μ F
 U_R : 275 V_{AC}
 Pitch: 7.5 / 10.0 / 12.5 / 15.0 / 22.5 /
 27.5 / 37.5 mm
 Safety class: X2



**WCAP-FTXH
THB X2-Capacitors**

C: 33 nF – 10 μ F
 U_R : 310 V_{AC}
 Pitch: 15 / 22.5 / 27.5 / 37.5 mm
 Safety class: X2

**SUPERCAPACITORS
(EDLCS)**



**WCAP-STSC
Standard Cylindrical
(Radial THT)**

C: 3 – 50 F
 U_R : 2.7 V_{DC}
 Temp. Range: -40 °C up to +65 °C



**WCAP-SISC
Standard Cylindrical
(Snap-In)**

C: 100 – 350 F
 U_R : 2.7 V
 Temp. Range: -40 °C up to +65 °C

**SAFETY CAPACITORS (X/Y)
MLCCS
SMT-CHIP**



**WCAP-CSSA
Safety Capacitors**

C: 33 pF – 4.7 nF
 U_R : 250 V_{AC}
 Ceramic: NPO, X7R
 Safety class: X1 / Y2, X2



**ALUMINUM ELECTROLYTIC CAPACITORS
SCREW CAPS**

Due to the various and different demands
 we offer screw capacitors as a customer-
 specific solution.



All Capacitors at a glance
www.we-online.com/capacitors



**Request your customized screw
 capacitors now:**
www.we-online.com/screwcaps



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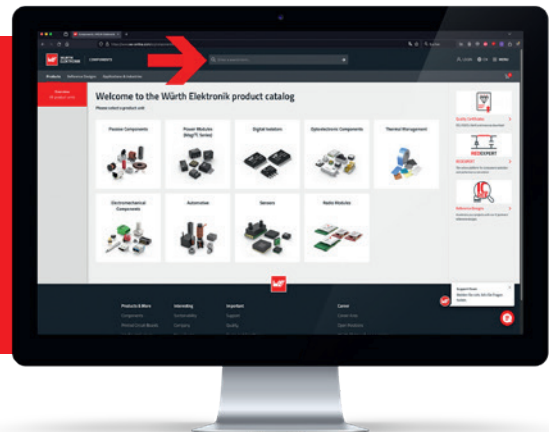
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RESISTORS

HOW TO FIND DETAILED PRODUCT INFORMATION?

VISIT WWW.WE-ONLINE.COM AND SEARCH
FOR PRODUCT SERIES INFORMATION, E.G.:

WRIS-PSMB



METAL PLATE RESISTORS



WRIS-PSMB

Enhanced Current Sensing

R: 5 mΩ – 10 mΩ
 R_{Tol} : ±1 %
 P: 0.33 W up to 1 W
 TCR: ±100 ppm/°C
 Temp. Range: -55 °C up to +155 °C



WRIS-PSMC

High Power Current Sensing

R: 2 mΩ – 10 mΩ
 R_{Tol} : ±1 % / ±5 %
 P: 2 W
 TCR: ±100 ppm/°C
 Temp. Range: -55 °C up to +155 °C

THICK FILM RESISTORS



WRIS-KSKE

General Purpose Current Sensing

R: 50 mΩ – 10 Ω
 R_{Tol} : ±1 %
 P: 0.125 W up to 1 W
 TCR: ±100 / +200 / +250 / +300 ppm/°C
 Temp. Range: -55 °C up to +155 °C



WRIS-KWKB

High Power

R: 2.2 Ω – 18 kΩ
 R_{Tol} : ±1 % / ±5 %
 P: 0.75 W up to 2 W
 TCR: ±200 ppm/°C
 Temp. Range: -55 °C up to +155 °C



WRIS-KWKH

High Power Current Sensing

R: 100 mΩ – 620 mΩ
 R_{Tol} : ±1 % / ±5 %
 P: 1 W
 TCR: +200 / +250 / +350 ppm/°C
 Temp. Range: -55 °C up to +155 °C



WRIS-RSKS

R: 0 Ω, 1 Ω – 10 MΩ
 R_{Tol} : +0.05 Ω / ±1 % / ±5 %
 P: 62.5 mW – 0.5 W
 TCR: ±100 ppm/°C / ±200 ppm/°C
 -200 ~ +400 ppm/°C
 Temp. Range: -55 °C up to +155 °C



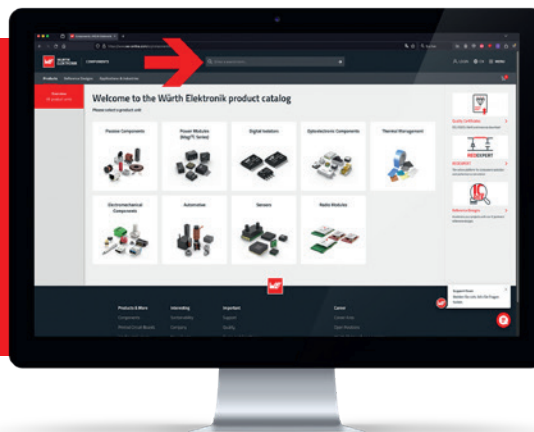
All resistors at a glance:
www.we-online.com/resistors

OPTOELECTRONICS

HOW TO FIND DETAILED PRODUCT INFORMATION?

VISIT WWW.WE-ONLINE.COM AND SEARCH
FOR PRODUCT SERIES INFORMATION, E.G.:

WL-SMCC



VISIBLE LEDS

CHIP LEDS

CHIP LEDS

CHIP LED SIDE VIEW

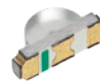
EXTENDED



**WL-SMCC SMD Mono-color
Chip LED Compact**
Size: 0402, 0603
 $\lambda_{\text{DOM typ}}$: 470 – 630 nm
 $I_V \text{ typ}$: 50 – 800 mcd
 $V_F \text{ typ}$: 2.0 – 3.2 V
Emitting color: White, Super Red, Red,
Amber, Yellow, Bright Green, Green, Blue



**WL-SBCD SMD Bi-color
Chip LED Diffused**
Size: 0606, 0805
 $\lambda_{\text{DOM typ}}$: 573 – 624 nm
 $I_V \text{ typ}$: 60 – 18 mcd
 $V_F \text{ typ}$: 2 – 3.3 V
Emitting color: Red, Super Red, Green,
Bright Green, Yellow



**WL-SMSW SMD Mono-color
Side view Waterclear**
Size: 0603, 3014, 1204
 $\lambda_{\text{DOM typ}}$: 470 – 624 nm
 $I_V \text{ typ}$: 50 – 600 mcd
 $V_F \text{ typ}$: 2 – 3.4 V
Emitting color: Red, Yellow, Bright
Green, Green, Blue



**WL-SBCC SMD Bi-Color
Chip LED Compact**
Size: 0603
 $\lambda_{\text{DOM typ}}$: 570 – 625 nm
 $I_V \text{ typ}$: 30 – 60 mcd
 $V_F \text{ typ}$: 2 V
Emitting color: Red/Bright Green



**WL-SBCW SMD Bi-color
Chip LED Waterclear**
Size: 0606, 1210
 $\lambda_{\text{DOM typ}}$: 520 – 630 nm
 $I_V \text{ typ}$: 30 – 560 mcd
 $V_F \text{ typ}$: 2 – 3.2 V
Emitting color: Super Red/Bright Green,
Yellow/Bright Green, Red, Green



**WL-SBSW SMD Bi-color
Side view Waterclear**
Size: 1204
 $\lambda_{\text{DOM typ}}$: 525 – 624 nm
 $I_V \text{ typ}$: 30 – 160 mcd
 $V_F \text{ typ}$: 2 – 3.3 V
Emitting color: Red/Bright Green,
Red/Green



**WL-SFCC SMD Full-color
Chip LED Compact**
Size: 0404
 $\lambda_{\text{DOM typ}}$: 470 – 621 nm
 $I_V \text{ typ}$: 50 – 180 mcd
 $V_F \text{ typ}$: 2 – 2.8 V
Emitting color: Red, Green, Blue



**WL-SFCW SMD Full-color
Chip LED Waterclear**
Size: 0606, 0805, 1206, 1210
 $\lambda_{\text{DOM typ}}$: 470 – 624 nm
 $I_V \text{ typ}$: 70 – 360 mcd
 $V_F \text{ typ}$: 1.9 – 3.3 V
Emitting color: Red, Green, Blue



**WL-SFSW SMD Full-color
Side view Waterclear**
Size: 1204, 1206
 $\lambda_{\text{DOM typ}}$: 465 – 622 nm
 $I_V \text{ typ}$: 140 – 850 mcd
 $V_F \text{ typ}$: 2 – 3 V
Emitting color: Red, Green, Blue

EXTENDED



**WL-SMCW SMD Mono-color
Chip LED Waterclear**
Size: 0603, 0805, 1206
 $\lambda_{\text{DOM typ}}$: 470 – 630 nm
 $I_V \text{ typ}$: 40 – 1600 mcd
 $V_F \text{ typ}$: 1.9 – 3.3 V
Emitting color: White, Super Red, Red,
Amber, Yellow, Bright Green, Green, Blue



**WL-SFCD SMD Full-color
Chip LED Diffused**
Size: 0606, 0805, 1210
 $\lambda_{\text{DOM typ}}$: 470 – 624 nm
 $I_V \text{ typ}$: 70 – 900 mcd
 $V_F \text{ typ}$: 2 – 3.3 V
Emitting color: Red, Green, Blue



**WL-SMCD SMD Mono-color
Chip LED Diffused**
Size: 0603
 $\lambda_{\text{DOM typ}}$: 470 – 630 nm
 $I_V \text{ typ}$: 60 – 430 mcd
 $V_F \text{ typ}$: 2.0 – 3.2 V
Emitting color: Super Red, Red, Yellow,
Bright Green, Green, Blue

OPTOELECTRONICS

VISIBLE LEDS

CHIP LED REVERSE MOUNT



WL-SMRW SMD Mono-color Reverse mount Waterclear

Size: 1205 (rectangular),
1206 (rectangular, cylindrical, dome)
 $\lambda_{\text{DOM typ}}$: 470 – 630 nm
 $I_V \text{ typ}$: 30 – 2200 mcd
 $V_F \text{ typ}$: 2 – 3.3 V
Emitting color: Super Red, Red, Amber,
Yellow, Bright Green, Green, Blue



WL-SMRD SMD Mono-color Reverse mount Diffused

Size: 1205
 $\lambda_{\text{DOM typ}}$: 470 – 624 nm
 $I_V \text{ typ}$: 40 – 200 mcd
 $V_F \text{ typ}$: 2 – 3.3 V
Emitting color: Red, Yellow, Bright
Green, Green, Blue



WL-SBRW SMD Bi-color Reverse mount Waterclear

Size: 1205
 $\lambda_{\text{DOM typ}}$: 470 – 624 nm
 $I_V \text{ typ}$: 45 – 285 mcd
 $V_F \text{ typ}$: 2 – 3.3 V
Emitting color: Red/Green, Red/Bright
Green, Red/Blue, Yellow/Bright Green



WL-SFRW SMD Full-color Reverse mount Waterclear

Size: 1205, 1206
 $\lambda_{\text{DOM typ}}$: 470 – 624 nm
 $I_V \text{ typ}$: 70 – 280 mcd
 $V_F \text{ typ}$: 2 – 3.3 V
Emitting color: Red, Green, Blue



WL-SMTW SMD Mono-color TOP LED Waterclear

Size: 2214, 3020, 2835, 3528, 5050
 $\lambda_{\text{DOM typ}}$: 465 – 636 nm
 $I_V \text{ typ}$: 70 – 3500 mcd
 $V_F \text{ typ}$: 2 – 3.2 V
Emitting color: Super Red, Red, Amber,
Yellow, Bright Green, Green, Blue



WL-SMTD Mono-color TOP LED Diffused

Size: 3528
 $\lambda_{\text{DOM typ}}$: 470 – 630 nm
 $I_V \text{ typ}$: 3500 – 50000 mcd
 $V_F \text{ typ}$: 2.4 – 3.4 V
Emitting color: Super Red, Red,
Yellow, Green, Blue



WL-SBTW SMD Bi-color TOP LED Waterclear

Size: 3528
 $\lambda_{\text{DOM typ}}$: 470 – 625 nm
 $I_V \text{ typ}$: 60 – 260 mcd
 $V_F \text{ typ}$: 2 – 3.2 V
Emitting color: Red/Blue, Red/Bright
Green, Yellow/Blue, Yellow/Bright Green



WL-SFTW SMD Full-color TOP LED Waterclear

Size: 3528, 5050
 $\lambda_{\text{DOM typ}}$: 470 – 625 nm
 $I_V \text{ typ}$: 230 – 1.700 mcd
 $V_F \text{ typ}$: 2 – 3.2 V
Emitting color: Red, Green, Blue



WL-SFTD SMD Full-color TOP LED Diffused

Size: 1616, 2022, 2828, 3535
 $\lambda_{\text{DOM typ}}$: 470 – 625 nm
 $I_V \text{ typ}$: 400 – 1900 mcd
 $V_F \text{ typ}$: 2 – 3.2 V
Emitting color: Red, Green, Blue



WL-TMRW THT Mono-color Round Waterclear

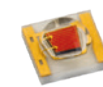
Size: 3 mm (with/without stopper)
5 mm (with/without stopper)
 $\lambda_{\text{DOM typ}}$: 470 – 623 nm
 $I_V \text{ typ}$: 1500 – 15000 mcd
 $V_F \text{ typ}$: 1.9 – 3.4 V
Emitting color: Red, Yellow, Green, Blue



WL-TMRC THT Mono-color Round Color

Size: 3 mm (without stopper)
5 mm (without stopper)
 $\lambda_{\text{DOM typ}}$: 470 – 645 nm
 $I_V \text{ typ}$: 30 – 500 mcd
 $V_F \text{ typ}$: 2 – 3.2 V
Emitting color: Red, Super Red, Yellow,
Bright Green, Blue

HIGH POWER CERAMIC



WL-SMDC SMD Mono-color Ceramic LED Waterclear

Size: 3535
 $\lambda_{\text{DOM typ}}$: 460 – 625 nm
 $\Phi_V \text{ typ}$: 25 – 85 lm
 $V_F \text{ typ}$: 2 – 3.4 V
Emitting color: Red, Yellow, Green, Blue

HORTICULTURE LEDS

TOP LED



WL-SMTW SMD Mono-color TOP LED Waterclear

Size: 2835
 $\lambda_{\text{DOM typ}}$: 450 – 730 nm
 $\Phi_V \text{ typ}$: Radiant 110 – 250 mW
 $V_F \text{ typ}$: 2.2 – 3.2 V
Emitting color: Far Red, Hyper Red,
Deep Blue



WL-SMDC Mono-color Ceramic LED Waterclear Horticulture

Size: 3535
 $\lambda_{\text{DOM typ}}$: 450 – 730 nm
 $\Phi_V \text{ typ}$: Radiant 240 – 600 mW
 $V_F \text{ typ}$: 1.8 – 3.2 V
Emitting color: Far Red, Hyper Red,
Deep Blue

WHITE LEDS

TOP LED



WL-SWTP SMD White

Top view PLCC

Size: 3014, 3022, 3030, 5630
 CCT: 2700 – 6000 K
 Φ_V typ: 7 – 39 lm
 V_F typ: 2.8 – 3.2 V
 Emitting color: Sunrise, Warm White,
 Moonlight, Daylight, Cool White

HIGH POWER CERAMIC



WL-SWTC SMD White

Top view Ceramic LED

Size: 3535
 CCT: 4000 – 6000 K
 Φ_V typ: 121 – 135 lm
 V_F typ: 3.2 V
 Emitting color: Moonlight, Daylight,
 Cool White

ULTRAVIOLET LEDS

TOP LED



WL-SUTW SMT Ultraviolet

Top LED Waterclear

Size: 2835
 λ_{Dpeak} : 365 – 405 nm
 I_E typ: 50 – 140 mW
 V_F typ: 3.4 – 3.6

HIGH POWER CERAMIC



WL-SUMW SMD Ultraviolet

Ceramic Waterclear

Size: 3535
 λ_{Dpeak} : 275 – 405 nm
 I_E : 1.5 – 1100 mW
 V_F typ: 3.5 – 6.5 V

7 SEGMENT DISPLAYS

SINGLE DIGIT

THT MOUNT



WL-T7DS

$\lambda_{Dom typ}$: 465 – 635 nm
 I_V typ: 32 – 46 mcd
 V_F typ: 2 – 3 V
 Emitting Color: Bright Green,
 Super Red, Blue

SMT MOUNT



WL-S7DS

$\lambda_{Dom typ}$: 465 – 635 nm
 I_V typ: 15 – 38 mcd
 V_F typ: 2 – 3 V
 Emitting Color: Bright Green,
 Super Red, Blue

LASER

VCSEL



WL-VCSEL Vertical Cavity

Surface Emitting Laser

Size: 3535
 λ_{Dpeak} : 850 – 940 nm
 Φ_V typ: 1900 – 2100 mW
 V_F typ: 2 – 2.1 V

OPTOELECTRONICS

INFRARED

INFRARED EMITTER

CHIP LED



WL-SICW SMD Infrared LED Waterclear

Size: 0402, 0603, 0805, 1206
 $\lambda_{\text{Centroid}}$: 850, 940 nm
 $I_{\text{e typ}}$: 0.8 – 2 mW/sr
 $V_{\text{F typ}}$: 1.2 – 1.4 V



WL-SISW SMD Infrared Sideview LED Waterclear

Size: 0402, 1002, 1104, 1106, 1206
 $\lambda_{\text{Centroid}}$: 850, 940 nm
 $I_{\text{e typ}}$: 1 – 11 mW/sr
 $V_{\text{F typ}}$: 1.2 – 1.6 V



WL-SIRW SMD Infrared Reverse mount LED Waterclear

Size: 1206 (dome)
 $\lambda_{\text{Centroid}}$: 850, 940 nm
 $I_{\text{e typ}}$: 5 – 20 mW/sr
 $V_{\text{F typ}}$: 1.2 – 1.4 V

TOP LED



WL-SITW SMD Infrared TOP LED Waterclear

Size: 3528
 $\lambda_{\text{Centroid}}$: 845, 940 nm
 $I_{\text{e typ}}$: 5 – 70 mW/sr
 $V_{\text{F typ}}$: 1.4 – 1.5 V



WL-SIMW SMD Infrared Ceramic Waterclear

Size: 3535
 $\lambda_{\text{Centroid}}$: 850, 940 nm
 $I_{\text{e typ}}$: 220 – 350 mW/sr
 $V_{\text{F typ}}$: 1.9 – 2.2 V



WL-SIQW Infrared QFN LED Waterclear

Size: 2720, 3535, 3737
 $\lambda_{\text{Centroid}}$: 850, 940 nm
 $I_{\text{e typ}}$: 125 – 800 mW/sr
 $V_{\text{F typ}}$: 1.8 – 3.2 V

THT INFRARED ROUND



WL-TIRW THT Infrared Round Waterclear

Size: 3 mm (without stopper)
 5 mm (without stopper)
 $\lambda_{\text{Centroid}}$: 845, 940 nm
 $I_{\text{e typ}}$: 30 – 85 mW/sr
 $V_{\text{F typ}}$: 1.3 – 1.5 V



WL-TIRC THT Infrared Round Color

Size: 3 mm (without stopper)
 5 mm (without stopper)
 $\lambda_{\text{Centroid}}$: 845, 940 nm
 $I_{\text{e typ}}$: 30 – 85 mW/sr
 $V_{\text{F typ}}$: 1.2 – 1.4 V

PHOTODIODES

CHIP TOP VIEW



WL-SDCB SMT Photodiode Chip Black

Size: 0805, 1206
 λ_{Peak} : 940 nm
 $I_{\text{p typ}}$: 1.8 μ A
 $I_{\text{D max}}$: 10 nA



WL-SDSB SMT Photodiode Sideview Black

Size: 1002, 1104
 λ_{Peak} : 940 nm
 $I_{\text{p typ}}$: 2.5 μ A
 $I_{\text{D max}}$: 10 nA



WL-TDRW THT Photodiode Round Waterclear

Size: 3 mm (without stopper)
 5 mm (without stopper)
 λ_{Peak} : 940 nm
 $I_{\text{p typ}}$: 28 μ A
 $I_{\text{D max}}$: 30 nA



All Optoelectronic Components at a glance:
www.we-online.com/optoelectronic



Explore our application notes for Optoelectronics:
www.we-online.com/appnotes

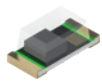


WL-TDRB THT Photodiode Round Black

Size: 3 mm (without stopper)
 5 mm (without stopper)
 λ_{Peak} : 940 nm
 $I_{\text{p typ}}$: 31 μ A
 $I_{\text{D max}}$: 30 nA

PHOTOTRANSISTORS

CHIP TOP VIEW



WL-STCW SMT Phototransistor Chip Waterclear

Size: 0603, 0805, 1206
 λ_{peak} : 940 nm
 $I_{CE, p, typ.}$: 1.6 mA
 $I_{CEO, Dark max.}$: 100 nA



WL-STCB SMT Phototransistor Chip Black

Size: 0603, 1206
 λ_{peak} : 940 nm
 $I_{CE, p, typ.}$: 1.2 mA
 $I_{CEO, Dark max.}$: 100 nA

CHIP SIDE VIEW



WL-STSW SMT Phototransistor Sideview Waterclear

Size: 1104
 λ_{peak} : 940 nm
 $I_{CE, p, typ.}$: 2.5 mA
 $I_{CEO, Dark max.}$: 100 nA



WL-STSB SMT Phototransistor Chip Black

Size: 1002
 λ_{peak} : 940 nm
 $I_{CE, p, typ.}$: 1 mA
 $I_{CEO, Dark max.}$: 100 nA

CHIP REVERSE MOUNT



WL-STRB SMT Phototransistor Reverse mount Black

Size: 1206 (dome)
 λ_{peak} : 940 nm
 $I_{CE, p, typ.}$: 4.4 mA
 $I_{CEO, Dark max.}$: 100 nA

PLCC TYPE



WL-STTW SMT Phototransistor Top Waterclear

Size: 3528
 λ_{peak} : 940 nm
 $I_{CE, p, typ.}$: 3.1 mA
 $I_{CEO, Dark max.}$: 100 nA



WL-STTB SMT Phototransistor Top Black

Size: 3528
 λ_{peak} : 940 nm
 $I_{CE, p, typ.}$: 2.8 mA
 $I_{CEO, Dark max.}$: 100 nA

THT ROUND



WL-TTRB THT Phototransistor Round

Size: 3 mm, 5 mm
 λ_{peak} : 940 nm
 $I_{CE, p, typ.}$: 10 mA
 $I_{CEO, Dark max.}$: 100 nA



WL-TTRW THT Phototransistor Round Waterclear

Size: 3 mm, 5 mm
 λ_{peak} : 850 nm
 $I_{CE, p, typ.}$: 15 mA
 $I_{CEO, Dark max.}$: 300 nA

OPTOCOUPLER

PHOTOTRANSISTOR



WL-OCPT Phototransistor

Package: Series 814/816/817 DIP 4
 Series 354/356/357 SOP4
 Series 101x LSOP4
 Series 827, DIP 8
 CTR: 50 – 600 %
 V_{ISO} : 3750 – 5000 V

DARLINGTON



WL-OCDA Phototransistor Darlington

Package: Series 352/355 SOP4,
 Series 815 DIP4
 CTR: 600–15000 %
 V_{ISO} : 3750 – 5000 V

TRIAC

NEW



WL-OCTR Phototransistor Triac

Package: DIP 4, DIP 6, SOP4
 (Random Phase and Zero Cross)
 I_{FT} : 5 mA – 15 mA
 V_{DRM} : 250 – 600 V
 V_{ISO} : 3750 – 5000 V

OPTICAL SENSORS

REFLECTIVE

NEW



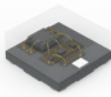
WL-OSEN Optical Sensor Reflective

d min.: 0.5 mm
 d max.: 10 mm
 $I_{CE, p, typ.}$: 0.3 – 2 mA
 $V_{F, typ.}$: 1.2 – 1.7 V



All Optoelectronic Components at a glance:
www.we-online.com/optoelectronic

OPTOELECTRONICS

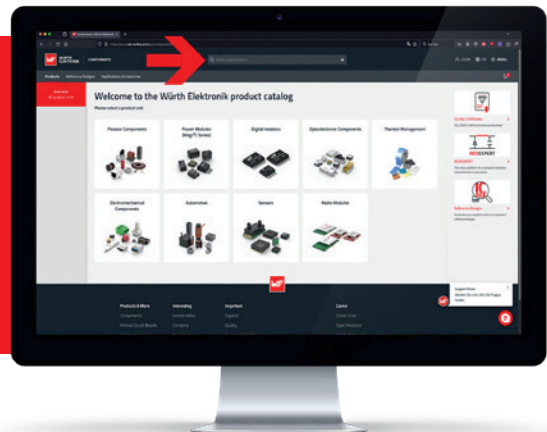
IC LEDs		
SINGLE WIRE COMMUNICATION PROTOCOL		
CHIP LED COMPACT	CHIP LED SIDE VIEW	PLCC TYPE
 WL-ICLED Integrated Controller within LED Size: 2020 λ_{peak}: 470 – 630 nm $I_{v\ typ}$: 250 – 120 mcd V_{DD}: 3.3 – 5.5 V Emitting color: Red, Green, Blue	 WL-ICLED Integrated Controller within LED Size: 3210 λ_{peak}: 470 – 630 nm $I_{v\ typ}$: 50 – 120 mcd V_{DD}: 3.3 – 5.5 V Emitting color: Red, Green, Blue	 WL-ICLED Integrated Controller within LED Size: 2121 λ_{peak}: 470 – 630 nm $I_{v\ typ}$: 240 – 1000 mcd V_{DD}: 4.2 – 5.5 V Emitting color: Red, Green, Blue
 All Optoelectronic Components at a glance: www.we-online.com/optoelectronic		 WL-ICLED Integrated Controller within LED Size: 5050 λ_{peak}: 470 – 630 nm $I_{v\ typ}$: 260 – 1300 mcd V_{DD}: 3.3 – 5.5 V Emitting color: Red, Green, Blue

POWER MODULES

HOW TO FIND DETAILED PRODUCT INFORMATION?

VISIT WWW.WE-ONLINE.COM AND SEARCH
FOR PRODUCT SERIES INFORMATION, E.G.:

MagI³C-VDMM



VARIABLE STEP DOWN REGULATOR MODULES



MagI³C-VDRM Variable Step Down Regulator Modules

V_{IN} : 2.95 – 50 V
 V_{OUT} : 0.8 – 24 V
 I_{OUT} : 1 – 6 A
 F_{SW} : 0.2 – 2 MHz

LED STEP DOWN HIGH CURRENT MODULES



MagI³C-LDHM LED Step Down High Current Modules

V_{IN} : 4.5 – 60 V
 $N_{LED_{max}}$: 16 ($V_F = 3.2$ V)
 I_{OUT} : 0.45 A
 F_{SW} : 0.8 MHz

VARIABLE ISOLATED SIP MODULES



MagI³C-VISM Variable Isolated SIP Modules

V_{IN} : 8 – 42 V
 V_{OUT} : 3.3 – 6 V
 P_O : 1 W
 V_{ISO} : 2000 V

VARIABLE STEP DOWN MICROMODULES

EXTENDED



MagI³C-VDMM Variable Step Down Micro- Modules

V_{IN} : 2.5 – 60 V
 V_{OUT} : 0.6 – 6 V
 I_{OUT} : 0.3 – 1.2 A
 F_{SW} : 1.2 – 4 MHz

FIXED ISOLATED SIP/SMT MODULES



MagI³C-FISM Fixed Isolated SIP/SMT Modules

V_{IN} : 2.97 – 26.4 V
 V_{OUT} : 5 – 15 V
 P_O : 1 – 2 W
 V_{ISO} : 1000 – 4000 V

VARIABLE STEP DOWN LGA MODULES



MagI³C-VDLM Variable Step Down LGA Modules

V_{IN} : 3.5 – 38 V
 V_{OUT} : 0.8 – 17 V
 I_{OUT} : 1 – 3 A
 F_{SW} : 200 – 2200 kHz

FIXED STEP DOWN REGULATOR MODULES



MagI³C-FDSM Fixed Step Down Regulator Modules

V_{IN} : 4.75 – 74.5 V
 V_{OUT} : 3.3 – 15 V
 I_{OUT} : 0.5 – 1 A
 F_{SW} : 0.166 – 0.7 MHz



MagI³C Power Module Designer:
<https://www.we-online.com/magic-designer>



All Power Modules at a glance:
www.we-online.com/power-mod



Explore our application notes
for Power Modules:
www.we-online.com/appnotes



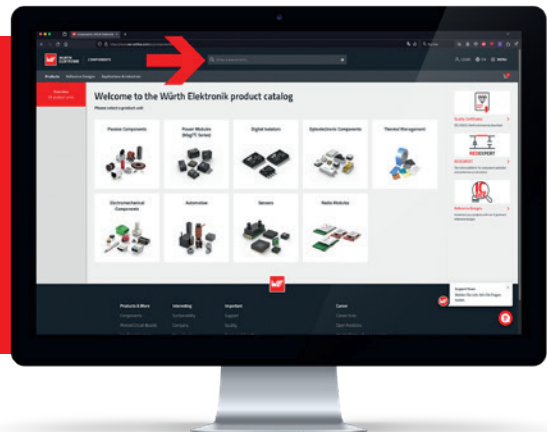
Component libraries available for:
Altium Designer, EAGLE
www.we-online.com/library

DIGITAL ISOLATORS

HOW TO FIND DETAILED PRODUCT INFORMATION?

VISIT WWW.WE-ONLINE.COM AND SEARCH
FOR PRODUCT SERIES INFORMATION, E.G.:

WPME-CDIP



CAPACITIVE DIGITAL ISOLATORS STANDARD



WPME-CDIS

Channel Configuration: 1/1, 2/0, 2/2, 3/1, 4/0
 $V_{CC \text{ min.}}$: 2.375 V
 $V_{CC \text{ max.}}$: 5.5 V
 V_{ISO} : 3750, 5000 V (RMS)



WPME-CDIP

Channel Configuration: 2/2, 3/1, 4/0
 $V_{CC \text{ min.}}$: 3.15 V
 $V_{CC \text{ max.}}$: 5.5 V
 V_{ISO} : 5000 V (RMS)



RADIO MODULES

WIRELESS CONNECTIVITY		
CELLULAR	BLUETOOTH	COMBINED
 Adrastea-I LTE-NB.IoT / Cat.M1 incl. GNSS incl. ARM Cortex M4 14 x 13 x 2 mm	 Proteus-I / -II Bluetooth® LE 4.2 Bluetooth® LE 5.0 Nordic nRF52832 3 dBm output power 11 x 8 x 2 mm	 Setebos-I Bluetooth® LE 5.1 & WE-ProWare 2.4 GHz Nordic nRF52840 8 dBm output power 12 x 8 x 2 mm
	 Proteus-III Bluetooth® LE 5.1 Nordic nRF52840 6 dBm output power 12 x 8 x 2 mm	 Stephano-I Bluetooth® LE 5.0 IEEE 802.11 b/g/n ESP32-C3 13 dBm output power 13 x 9.5 x 2 mm
WIFI		
 Calypso IEEE 802.11 b/g/n 2.4 GHz 18 dBm output power 19 x 27.5 x 4 mm	 Proteus-e Bluetooth® LE 5.1 Nordic nRF52805 4 dBm output power 9 x 7 x 2 mm	
		PROPRIETARY
		 Thadeus 433 MHz RF Pad 15 dBm output power 27 x 17 x 3.8 mm
BUILD YOUR OWN FIRMWARE	LONG-RANGE-WAN	
 Ophelia-I Nordic nRF52805 4 dBm output power 9 x 7 x 2 mm	 Daphnis-I 868 MHz Supporting Classes A, B and C 13 dBm, output power 15 x 16 x 3 mm	 Tarnos-III 868 MHz RF Pad / PCB Antenna 14 dBm output power 27 x 17 x 3.8 mm
 Ophelia-III Nordic nRF52840 6 dBm output power 12 x 8 x 2 mm		 Thebe-II 868 MHz RF Pad 27 dBm output power 27 x 17 x 3.8 mm
	WM-BUS	
 Orthosie-I ESP32-C3 13 dBm output power 13 x 9.5 x 2 mm	 Mimas-I 169 MHz OMS Operating mode: N (a-f) 14 dBm output power 27 x 17 x 3.8 mm	 Telesto-III 915 MHz RF Pad / PCB Antenna 14 dBm output power 27 x 17 x 3.8 mm
	 Metis-II 868 MHz OMS Operating modes S, T, C 14 dBm output power 27 x 17 x 3.8 mm	 Themisto-I 915 MHz RF Pad 25 dBm output power 27 x 17 x 3.8 mm
WIREFAS		
 Thetis-I Wirepas routing mesh protocol, 2.4 GHz Nordic nRF52840 +6 dBm output power 8 x 12 x 2 mm	 Metis-Analyzer 868 MHz OMS parser Operating modes S, T, C Deep packet analysis Decryption (AES128)	 Triton 2.4 GHz RF Pad / chip antenna 10 dBm output power 27.5 x 16 x 3.2 mm
	 Metis-Simulator 868 MHz OMS Operating modes S, T, C Simulates Meter Data	 Thyone-I 2.4 GHz Nordic nRF52840 Smart antenna selection 8 dBm output power 12 x 8 x 2 mm

SENSORS

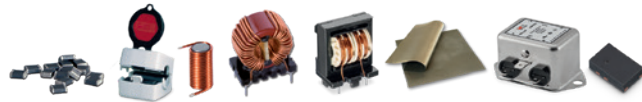
SENSORS		
HUMIDITY	ABSOLUTE PRESSURE	DIFFERENTIAL PRESSURE
 WSEN-HIDS 16 bit humidity and temperature output I²C and SPI interface 1.5 x 1.5 x 0.5 mm	 WSEN-PADS 26 to 126 kPa 260 to 1260 mbar 24 bit output resolution 2 x 2 x 0.8 mm	 WSEN-PDUS ±0.1 kPa / ±1 mbar 15 bit digital output Analog & I²C interface 5 V supply, vertical nozzles 13.3 x 8 x 7.55 mm
		 WSEN-PDUS ±1 kPa / ±10 mbar 15 bit digital output Analog & I²C interface 5 V supply, vertical nozzles 13.3 x 8 x 7.55 mm
TEMPERATURE	MOTION	
 WSEN-TIDS Digital temp. sensor Up to ±0.25 °C typ. 16 bit output resolution 2 x 2 x 0.55 mm	 WSEN-ITDS 3 axis acceleration 14 bit output resolution ±2g, ±4g, ±8g, ±16g 2 x 2 x 0.7 mm	 WSEN-PDUS ±1 kPa / ±10 mbar 15 bit digital output Analog & I²C interface 3.3 V supply, horizontal nozzles 13.3 x 8 x 7.55 mm
	 WSEN-ISDS 6 axis acceleration + gyroscope 16 bit output resolution ±2g, ±4g, ±8g, ±16g ±125 dps, ..., ±2000 dps	 WSEN-PDUS ±10 kPa / ±100 mbar 15 bit digital output Analog & I²C interface 5 V supply, vertical nozzles 13.3 x 8 x 7.55 mm
RDC-M-MODULE		
 WE-RCDS Through hole For IEC 62955: 2018 39.8 x 44.9 x 13.2 mm		 WSEN-PDUS -100 to 1000 kPa / -1 to 10 bar 15 bit digital output Analog & I²C interface 5 V supply, vertical nozzles 13.3 x 8 x 7.55 mm
 WE-RCDS PCB mounting with primary conductors. For IEC 62955: 2018 49 x 34.36 x 16.3 mm		 WSEN-PDUS 0 to 100 kPa / 0 to 1 bar 15 bit digital output Analog & I²C interface 5 V supply, vertical nozzles 13.3 x 8 x 7.55 mm
		 WSEN-PDUS -100 to 1000 kPa / -1 to 10 bar 15 bit digital output Analog & I²C interface 3.3V supply, vertical nozzles 13.3 x 8 x 7.55 mm
		 WSEN-PDUS 0 to 1500 kPa / 0 to 15 bar 15 bit digital output Analog & I²C interface 5 V supply, vertical nozzles 13.3 x 8 x 7.55 mm



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