



### Multilayer Chip Balun

- Low loss SMD Balun with balanced impedance of 50 to 200  $\Omega$
- Operating temperature:  $-40\text{ }^{\circ}\text{C}$  to  $+85\text{ }^{\circ}\text{C}$
- Power Capacity up to 2 W
- Wireless communication systems: Home RF, DECT, WLAN, Bluetooth, ZigBee



### Multilayer Chip Antenna

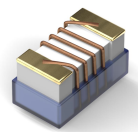
- Extremely low profile
- Power capacity: 5 W max.
- Omni-directional
- Operating temperature:  $-40\text{ }^{\circ}\text{C}$  to  $+85\text{ }^{\circ}\text{C}$
- High gain
- Wireless communication applications: GSM, WLAN, Bluetooth, Home RF, IoT



Unlike custom designed PCB antennas, the WE-MCA has a consistent omnidirectional radiation pattern. This gives flexibility and variation in the positioning of the antenna in the application.

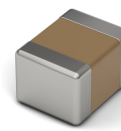
### Wire Wound Ceramic Inductor <sup>1)</sup>

- Excellent Q-factor
- up to 12.5 GHz self resonant frequencies
- High quality
- Up to 2 % inductance tolerance
- High thermal stability
- Operating temperature:  $-40\text{ }^{\circ}\text{C}$  to  $+125\text{ }^{\circ}\text{C}$
- Custom designs on request



### Multilayer Ceramic Capacitor <sup>1)</sup>


- Operating temperature:  $-55\text{ }^{\circ}\text{C}$  to  $+125\text{ }^{\circ}\text{C}$
- High Performance ceramic
- Minimal Aging for NPO
- Perfect for Filtering

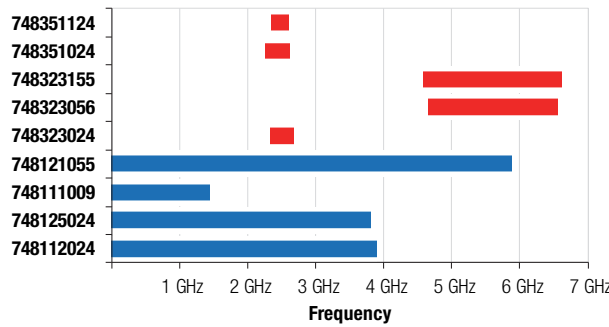


<sup>1)</sup> Modelithics® libraries available for Advanced Design System (ADS), Genesys and also for AWR Microwave Office

### Multilayer Low/Band Pass Filter

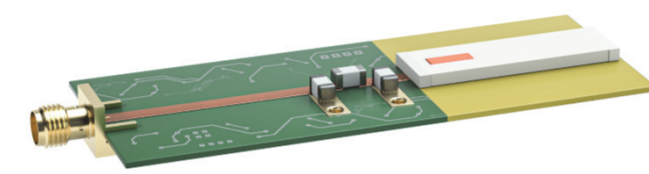
- WE-LPF Multilayer Chip Low-Pass Filter
- WE-BPF Multilayer Chip Band-Pass Filter
- Power capacity up to 3 W
- Guaranteed filter characteristics over a wide temperature range
- Wireless communication applications: GSM, WLAN, Bluetooth



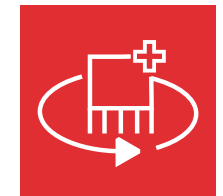
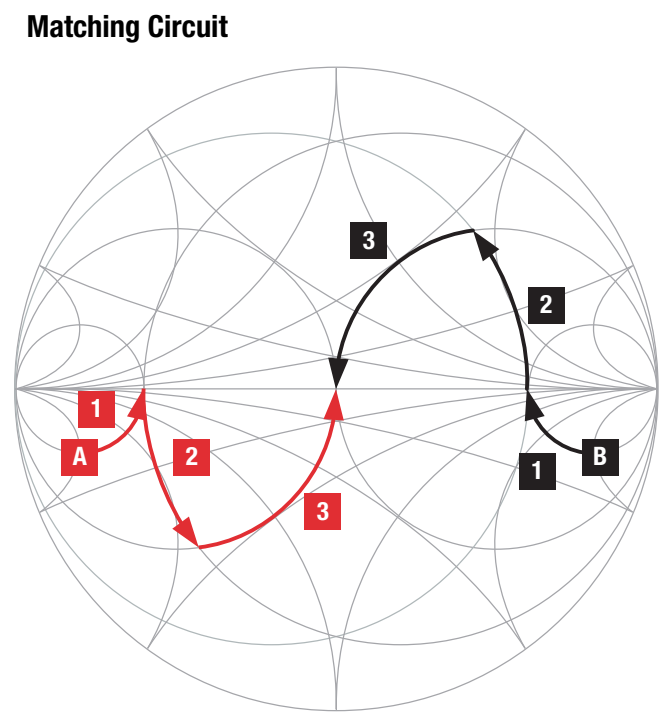


Usable Frequency ranges with *Lowpass* or *Bandpass* behaviour

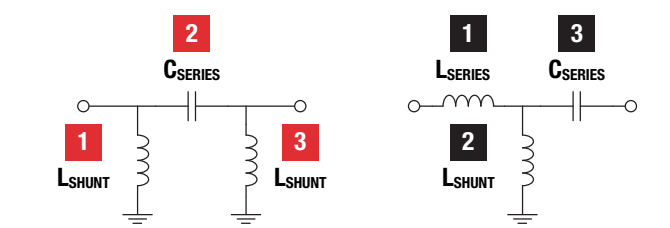
## Antenna Matching and Characterization Support



The WE-MCA Multilayer Chip Antenna has a very diverse applications portfolio when it comes to wireless data transfer, including Bluetooth, ZigBee, GSM, NB-IoT and WLAN. Our RF design engineers will assist you with antenna matching and performance optimization during the design and testing phase of your wireless product, should you choose Würth Elektronik as your antenna provider.



- #### What we can offer to you
- Simulation models
  - Optimize antenna performance
  - Antenna selection
  - Matching circuit
  - Antenna placement and positioning
  - Measurement of reflection loss



Pi matching for Point A      T matching for Point B

Simulate all of our RF Products in REDEXPERT  
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For further information contact our RF engineers today!  
[antenna.matching@we-online.com](mailto:antenna.matching@we-online.com)

