

What is so special about Microlab Wireless Products?

Transfer of Experience: Microlab has been making passive components for the sub-systems and laboratory markets for over 50 years. Such experience has contributed to the design of a range of dedicated products meeting the special demands of the commercial wireless market.

Choice of Frequency Ranges: Wireless products are most commonly required for one or more of the following bands:

PMR, P-25 and Tetra band	380 - 520 MHz
700 MHz band	698 - 800 MHz
Cellular or GSM band (low band)	800 - 960 MHz
PCS or DCS band (high band)	1,710 - 1,990 MHz
UMTS (3G band)	1,920 - 2,170 MHz
WiFi band for 802.11(b) and (g)	2400 - 2500 MHz
WiMAX-LTE	2500 - 2700 MHz
WiFi band for 802.11(a) and (n)	5,150 - 5,825 MHz

The frequency limits of cellular wireless is now extended to 698 to 2,700 MHz in for the merging of W-LAN (2,400 MHz) with cell phones and projected new cellular and WiMAX bands (698 - 806 and 2,500 - 2,690 MHz). To limit the variety of products and make inventory more flexible, Microlab has designed most of its wireless products to operate in all bands.

Passive Intermodulation (PIM): All products are designed and manufactured to produce the lowest possible level of PIM. We avoid the use of certain materials and certain combinations of materials. Only approved plating is permitted. Positive interconnections are employed wherever possible. Shielding is used to prevent coupling to unwanted signal paths. All RF path assembly is performed wearing white cotton gloves to prevent contaminants reaching critical surfaces. See also PIM Application Note.

Choice of Connectors: Microlab wireless products are generally supplied with type N or 7-16 mm DIN triplated connectors, but others are available as options. Hex nuts are employed on all male connectors to facilitate wrench tightening to a specific torque specification. This better ensures a low PIM (passive intermodulation), and weather-tight connection. We also design wireless products with connectors positively thread-locked to the housing and sufficiently spaced to allow wrench tightening.

Packaging: All products are supplied with protective plastic covers on female connectors and packaged in accordance with best commercial practices. On request, anti-tarnish wrapping may be used, products may be individually boxed, and external boxes may be bar coded.

Mounting: All Microlab wireless products are designed either for flush mounting on a flat surface or for attachment to a round pole. Mounting hardware for such attachment is available.

Outdoor Use: Unless otherwise stated, products are generally moisture sealed. If the application is in damp environments such as tunnels or outside where it must withstand the forces of weather, specify IP67

RF Shielding: All products are designed and built to be electrically shielded to a minimum of -70 dBc, so they may be used in close proximity to each other.

Reliability: All products are rugged and designed for high reliability.

Off-The-Shelf: Key products are usually available from stock.(06/10)