

LLPG1788

SURFACE-MOUNT MULTI-BAND MIMO ANTENNA

PRODUCT OVERVIEW [PATENT PENDING]

The LLPG1788-CJC-B-180 is a low-profile, ground-plane-independent, multi-band MIMO antenna integrating cellular (5G Sub-6), WiFi 6E/7, and GNSS into a single housing. Designed for high-element, high-bandwidth applications, it supports wide frequency coverage and modern MIMO architectures for mobile and fixed installations where space, performance, and mounting flexibility are critical.

- **High-Density Multi-Band Integration:** Combines 8× 5G Sub-6 cellular elements, 8× WiFi 6E/7 elements, and 1× GNSS element in a single low-profile enclosure to support high-throughput MIMO systems.
- **Ground-Plane Independent Design:** Panel-mount architecture enables consistent performance without reliance on a ground plane, simplifying installation across diverse vehicle and fixed-site surfaces.
- **Wideband Performance with Integrated GNSS:** Supports cellular frequencies from 617–7125 MHz, WiFi 2.4–2.5 GHz and 4.9–7.125 GHz, and GNSS L1-band constellations, with integrated LNA and bias support for precision positioning.

Tested and trusted, Mobile Mark focuses on quality and leveraging the expertise of highly skilled professionals, specializing in customizable manufacturing solutions across North America and Europe. By combining advanced technologies with comprehensive team knowledge, we ensure tailored products that meet diverse needs, all delivered efficiently to exceed expectations.

To Purchase, visit www.TheAntennaStore.com.

Electrical Specifications		
Frequency & Gain	Cables 1-8 (5G Sub-6)	617-960 MHz, 2 dBi Peak 960-1710 MHz, 2.5 dBi 1710-7125 MHz, 3 dBi Peak
	Cables 9-16 (WiFi 6E/7)	2.4-2.5 GHz, 5 dBi Peak 4.9-7.125 GHz, 5 dBi Peak
	Cable 17 (GNSS)	1561, 1575, & 1602 MHz LNA: 26 dB ±3 dB (RHCP)
VSWR	< 2.5:1 (95% mid-band)	
	< 3.0:1 (5% band-edge)	
Impedance	50 Ohm Nominal	
Power Rating	10 Watts Max	
GNSS/GPS	Amplifier Gain & Bias Voltage	GPS L1, Galileo E1, GLONASS L1, BeiDou B1, and QZSS L1C LNA 26 dB ±3 dB/Element 4 dBiC +3 to +5 VDC
	Current	10 mA Typical, 20 mA Max
Noise Figure	1.7 dB Typical, 2.0 dB Maximum	

Mechanical Specifications	
Radome Material & Color	UV Stable ASA, Available in Black or White
Radome Dimension	9.0" L x 3.5" W x 1.25" H (22.8 cm x 8.9 cm x 31.8 mm)
Standard Connectors	SMA Plugs (M)
Cables	RG-178, for 5G Sub-6, 12 in (30.5 cm) LL-195 Cables for WiFi 6E/7, 15 ft (4.3 m) RG-174 Cable for GNSS, 12 in (30.5 cm)
Weight	Cable length 12 in: 1.1 lb (500 g) Cable length 15 ft: 7.5 lb (3.4 kg)
Operating Temperature	-40° to +80° C
Mounting	Thru-Hole, Ground-Plane Independent 7/8–20 base bolt with 3/4 in mounting stud
RoHS Compliant	Yes



HIGHLIGHTS:

- Covers Global Cellular & 5G Sub-6 Frequencies
- Heavy-Duty, Low-Profile Housing
- Compact & Powerful MIMO Design
- Easy to Install
- Fast Delivery
- Manufactured in North America & Europe

COMMON APPLICATIONS:

- Advanced Multiband Modems
- Mobile & Fleet Communications
- Fixed Site & Infrastructure Installations

BANDS:

- 5G NR (Sub-6): n1, n2, n3, n4, n5, n6, n7, n8, n12, n13, n14, n18, n20, n24, n25, n26, n28, n29, n30, n34, n38, n39, n40, n41, n46, n47, n48, n50, n53, n54, n65, n66, n67, n70, n71, n74, n75, n76, n77, n78, n79, n80, n81, n82, n83, n84, n85, n86, n89, n90, n91, n92, n93, n94, n95, n96, n97, n98, n99, n100, n101, n102, n104, n105, n106, n109
- LTE: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 65, 66, 67, 68, 69, 70, 71, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 89, 90, 95, 96, 98, 100, 101, 102, 103, 104, 105, 106, 107, 252, 255
- WiFi: 2.4–2.5 GHz, 4.9–7.125 GHz (WiFi 6E / WiFi 7, Bluetooth)
- GNSS: GPS L1, Galileo E1, GLONASS L1, BeiDou B1, QZSS L1C



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