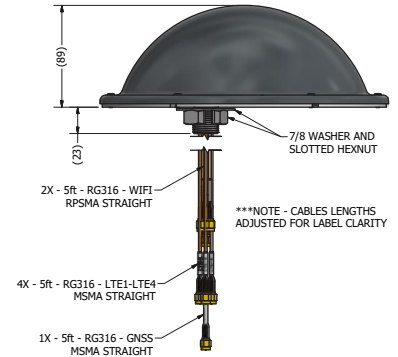


# Cabinet Mount GNSS Multi-Band Antenna, Multi-Port LTE and 802.11ac MIMO

The GL7X1-IOTCM-5FT antenna provides optimal 5G and 4G LTE and dual-band 802.11ac Wi-Fi coverage in a single, low-profile, impact resistant housing. The design includes proprietary high rejection GNSS technology for optimal performance and support of multi-carrier voice and data networks.

## Features

- 5G ready multi-band, multi-port design for highly efficient performance and reliable coverage of multiple cellular carrier and Wi-Fi networks
- UV-stable high impact glass fiber reinforced (GFR) radome
- Metal 7/8-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- IP67 compliant design provides maximum protection against water or dust ingress
- Proprietary high rejection filtering allows wide-band coverage while achieving superior out-of-band rejection for GNSS frequencies
- Adhesive VHB tape for permanent mount, vandal resistant installations



GL7X1-IOTCM-5FT

## STANDARD CONFIGURATION

Elements	Cable	Connectors	Mounting Method
LTE (Primary)	Two-5-ft RG-316 cable	SMA Plug (Male)	7/8-inch OD, 14 UNS - 2B 3/4-inch long (.75") zinc stud mount with jam nut
LTE (Receive)	Two-5-ft RG-316 cable	SMA Plug (Male)	
Wi-Fi (All Ports)	Two-5-ft RG-316 cable	Reverse Polarity SMA Plug (Male)	
GNSS	One-5-ft RG-316 cable	SMA Plug (Male)	

## ELECTRICAL SPECIFICATIONS - RF ANTENNAS

Elements	F1 (MHz)	F2 (MHz)	SWR**	Gain (dB)*			Efficiency*		Polarization	Nominal Impedance	Maximum Power
				Max	Typical	Range (±)	Avg	Range (±)			
LTE Primary (1&3)	617	698	3.4	2.0	1.0	1.0	38%	5%	Linear, Vertical	50 ohms	25 watts
	698	802	2.3	5.1	2.9	2.2	42%	10%			
	824	894	1.8	5.9	4.1	1.9	53%	5%			
	880	960	1.8	5.4	4.1	1.3	53%	5%			
	1710	2200	1.6	5.9	5.1	0.8	50%	2%			
	2300	2690	1.6	4.7	3.8	0.9	44%	5%			
	3400	3800	1.6	2.7	2.2	0.5	35%	3%			
5150	5950	2.1	1.3	0.0	1.3	14%	3%				
LTE Secondary (2&4)	617	698	6.1	0.6	-2.8	3.4	16%	18%	Linear, Vertical	50 ohms	25 watts
	733	802	2.7	4.5	3.3	1.2	53%	9%			
	824	894	2.7	4.4	2.9	1.5	43%	14%			
	880	960	3.3	3.6	2.3	1.3	32%	3%			
	1805	2200	2.5	5.5	3.0	2.5	42%	9%			
	2300	2690	1.5	5.4	4.4	0.9	45%	4%			
	3400	3800	2.8	-3.1	-4.9	1.8	5%	2%			
5150	5950	2.1	4.5	1.5	3.0	15%	7%				
Wi-Fi	2400	2500	1.5	9.1	6.3	2.8	44%	2%	Linear, Vertical	50 ohms	25 watts
	4900	5900	1.9	9.3	6.5	2.9	32%	5%			

\* Gain and efficiency values are measured at the end of 5-Ft cables, on a 2-Ft ground plane  
 \*\* VSWR and isolation values are measured at the end of 5-Ft cables without a ground plane.



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## ELECTRICAL SPECIFICATIONS - RF ANTENNAS, continued

### Minimum Isolation (dB)\*\*

Elements	LTE Primary (1&3)		LTE Secondary (2&4)		Wi-Fi	
LTE Primary (1&3)	617-960 MHz	16.9	617-960 MHz	14.0	617-960 MHz	28.0
	1.71-2.7 GHz	28.0	1.71-2.7 GHz	24.0	1.71-2.7 GHz	17.0
	3.4-3.8 GHz	33.0	3.4-3.8 GHz	39.0	3.4-3.8 GHz	37.0
	5.15-5.95 GHz	40.0	5.15-5.95 GHz	44.0	5.15-5.95 GHz	38.0
LTE Secondary (2&4)			617-960 MHz	16.0	617-960 MHz	32.0
			1.71-2.7 GHz	20.0	1.71-2.7 GHz	25.0
			3.4-3.8 GHz	50.0	3.4-3.8 GHz	50.0
			5.15-5.95 GHz	41.0	5.15-5.95 GHz	41.0
Wi-Fi					2.4-2.5 GHz	30.0
					4.9-5.9 GHz	35.0

## ELECTRICAL SPECIFICATIONS - GNSS ANTENNAS

Frequency Band	Amplifier Gain	Output VSWR	DC Current	DC Voltage	Noise Figure	Out-of-Band Rejection
1565-1608 MHz	@ 3.0 VDC: 26 dB (typical)	2.0:1 (maximum)	25 mA (typical)	2.8-6.0 V (operating) ≤ 12.0 V (survivability)	< 2.0 dB (typical)	f <sub>0</sub> = 1586 MHz f <sub>0</sub> ± 50 MHz: ≥ 60 dBc f <sub>0</sub> ± 60 MHz: ≥ 70 dBc

## ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

Frequency Band	Nominal Gain	Polarization	Nominal Impedance
1565-1608 MHz	2 dBic @ 90° -3 dBic @ 20°	Right hand circular	50 ohms

## MECHANICAL SPECIFICATIONS AND ENVIRONMENTAL SPECIFICATIONS

Dimensions	Housing Material	Temperature Range	Gasket Design & Construction
9.88" OD x 3.46" H (251 x 88 mm)	Grey, UV-stable high impact reinforced (GFR) glass fiber radome	-40°C to +85°C	Contour matching, conformable, thermoplastic-elastomer gasket designed to seal between radome and baseplate. Gasket flexes and conforms to contoured surfaces. Baseplate has a 3M™ VHB mounting pad for anti-rotation.

\*\* VSWR and isolation values are measured at the end of 5-Ft cables without a ground plane.  
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