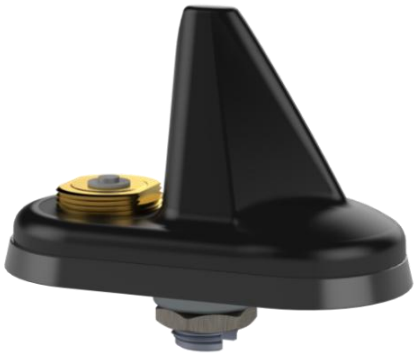
em wave inc.

Product Data Sheet



EM-MG51002-SPSR

3-in-1 Combination Antenna
ALL-BAND P25 Mobile Applications
NMO + Wi-Fi 6E + GNSS
3/4" Direct Hole Mount
NMO Mount: Antenna Sold Separately
Wi-Fi 6E: Wide Band, 2.4 - 7.125 GHz
GNSS: Beidou, GPS, Galileo, QZSS, GLNSS

NMO Mount Electrical Specifications

Frequency Band [1]	30 – 1000 MHz
VSWR [2]	1.5:1 typical
Impedance	50Ω
Power Rating	100 W

1. Broader Bandwidth Available.
2. Antenna / Frequency Dependent

Wi-Fi 6E Antenna Electrical Specifications

Frequency Bands	2.4-2.5 / 5.2-7.125 GHz	
VSWR	2:1 max	
Impedance	50Ω	
Power Rating	15 W, max	
Polarization	Vertical	
Peak Gain (Eff.)	4.5 dBi @ 2.4-2.5 GHz	(60%)
	1 dBi @ 5.2-5.9 GHz	(43%)
	2.5 dBi @ 6.0-7.125 GHz	(44%)

GNSS LNA and Filter Specifications

Frequency Band (L1)	1560 – 1610 MHz
Input / Output VSWR	2.0:1 max
Impedance	50Ω
Gain	27±2 dB
Noise Figure (dB)	1.6 dB, max
Operational Voltage (Vdc) Current Drain (Idc)	2.7 - 5.5 V 15±2mA (@5Vdc)
Filter Type Attenuation (DC-1510 MHz)	SAW 34 dB min
Attenuation (>1660 MHz)	34 dB min
Passive Antenna Element	
Frequency Band (L1)	1560-1610 MHz
Antenna VSWR	2:1 max
Impedance	50Ω
Polarization	RHCP

Mechanical Specifications

Mounting Application	Bulkhead, ¾ in. Thru-Hole	**Mobile Radio Connectors**	**Cables [L]**
Ant. Feed Cable NMO	RG-58/U; 0.3m (FME, J)	NMO RF Antenna, FME (J)	RG-58/U; [16 ft. (4.9 m)]
Ant. Feed Cable Wi-Fi 6E	RG-316/U; 0.3m (SMA, J)	Wi-Fi 6E, SMA RP (P)	LL195; [16 ft. (4.9 m)]
Ant. Feed Cable GNSS	RG-174/U; 5m (SMA, P)	GNSS, SMA (P)	RG-174/U; [16.5 ft (5m)]
Height	2.76 in. (70.2 mm)	**Operating Temperature**	-40° to 85° C
Length	4.5 in. (114.3 mm)	**Corrosion / Humidity**	Salt Fog / 95% RH
Width	2.2 in. (55.9 mm)	**Ingress**	IP66

NMO Antenna and FME Adapter Sold Separately. Specifications Subject to Change without Notification.

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