

M990 M980 M970 M960 M950 Low-Profile Series Mobility M2M IoT Antenna Specifications

Multi-Carrier Multi MIMO Cellular 4G 5G CBRS / GPS GNSS / Multi MIMO Multi Band WiFi 2.4GHz 5GHz~6GHz

Multi-MIMO Multi-Carrier / Multi-Technology 4G LTE CBRS 5G Compliant	Verizon 4G 5G (DSS) Bands: B2 B4 B5 B13 B46 B48 B66 T-Mobile 4G 5G Bands: B2 B4 B5 B12 B25 B26 B41 B66 B71 n25 n41 n66 n71 AT&T 4G 5G Bands: B2 B4 B5 B12 B14 B17 B29 B30 B66 n5 CBRS LTE Band: B48
4G 5G CBRS Frequency Range WiFi Frequency Range	617-960MHz / 1710-6000MHz 2.4-2.5GHz / 4.9-6GHz (Concurrent)
4G 5G CBRS Avg Peak Gain: <i>Isotropic (dBi)</i> WiFi Avg Peak Gain: <i>Isotropic (dBi)</i>	(3dBi) 617-960MHz / (5.5dBi) 1710-3800MHz / (5.5dBi) 4900-6000MHz / (5.3dBi) CBRS LTE 3.5GHz (9dBi) 2.4-2.5GHz / (9dBi) 4.9-6GHz
Typical Efficiency 4G 5G Elements	617-960MHz >60% 1710-3800MHz >65% 4900-6000MHz >85%
Typical Efficiency WiFi Elements	>70%
Isolation 4G 5G Elements Isolation WiFi Elements	>12dB >14dB
Correlation Co-efficient 4G 5G Elements Correlation Co-efficient WiFi Elements	<0.2 <0.1
Radiation Pattern / Polarization	Omni Directional / Vertical
Nominal Impedance	50Ω
GPS GNSS Specifications	GPS Glonass Galileo QZSS Compass <i>In-Band Frequency Interference Filter for LTE B13 B14</i>
Frequency Range	1562-1612MHz
LNA Gain	29dB ± 2dB
VSWR	<2.0:1
Out of Band Rejection	>45dB (@ > +/- 100MHz f)
Typical Noise Figure	<-2dB
Notch Filter Rejection @787MHz	24dB
Operating Voltage	3-5V DC
Typical Current	15mA
Antenna Housing	High Impact UV Stable ABS Polymer (Black or White) Housing Height: 65mm (2.56") / Base Length: 200mm (7.87") / Base Width: 60mm (2.36")
Connector Types	All Standard RF Connectors Available (Incl. FAKRA Connector Ends)
15ft Coax Cables (All Cables Full Length)	Cellular 4G 5G CFD200 Coax Cables / Dual Band WiFi CFD200 Coax Cables / GPS GNSS CFD100 Coax Cable * Custom cable lengths & connector end options are available
Mounting Bolt	Stainless Steel Mounting Bolt: Length 24mm (0.95") / Diameter: 25.4mm (1") Diameter w/Anti Rotation Perma Seal Baseplate Pad
Operating Temp	-40° / +80°C (-40° / +176°F)
Ingress Protection	IP69K

## Antenna Configuration Options

M990 9-Element  
Configurations

M990-BB-4CG4W: Multi-MIMO 4 x Cellular 3G 4G 5G CBRS / GPS GNSS / Multi-MIMO 4 x WiFi Dual Band – (Black)  
M990-BW-4CG4W: Multi-MIMO 4 x Cellular 3G 4G 5G CBRS / GPS GNSS / Multi-MIMO 4 x WiFi Dual Band – (White)

M990-BB-6CG2W: Multi-MIMO x 6 Cellular 3G 4G 5G CBRS / GPS GNSS / MIMO 2 x WiFi Dual Band – (Black)  
M990-BW-6CG2W: Multi-MIMO x 6 Cellular 3G 4G 5G CBRS / GPS GNSS / MIMO 2 x WiFi Dual Band – (White)

M990-BB-2CG6W: MIMO x 2 Cellular 3G 4G 5G CBRS / GPS GNSS / Multi-MIMO 6 x WiFi Dual Band – (Black)  
M990-BW-2CG6W: MIMO x 2 Cellular 3G 4G 5G CBRS / GPS GNSS / Multi-MIMO 6 x WiFi Dual Band – (White)

M990-BB-8CG: Multi-MIMO 8 x Cellular 3G 4G 5G CBRS / GPS GNSS – (Black)  
M990-BW-8CG: Multi-MIMO 8 x Cellular 3G 4G 5G CBRS / GPS GNSS – (White)

M990-BB-8WG: Multi-MIMO 8 x WiFi Dual Band / GPS GNSS – (Black)  
M990-BW-8WG: Multi-MIMO 8 x WiFi Dual Band / GPS GNSS – (White)

M980 8-Element  
Configurations

M980-BB-4CG3W: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / GPS GNSS / MIMO 3 x WiFi Dual Band – (Black)  
M980-BW-4CG3W: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / GPS GNSS / MIMO 3 x WiFi Dual Band – (White)

M980-BB-4C4W: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / Multi MIMO 4 x WiFi Dual Band – (Black)  
M980-BW-4C4W: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / Multi MIMO 4 x WiFi Dual Band – (White)

M980-BB-2C6W: MIMO x 2 Cellular 3G 4G 5G CBRS / Multi MIMO 6 x WiFi Dual Band – (Black)  
M980-BW-2C6W: MIMO x 2 Cellular 3G 4G 5G CBRS / Multi MIMO 6 x WiFi Dual Band – (White)

M980-BB-6C2W: Multi MIMO x 6 Cellular 3G 4G 5G CBRS / MIMO 2 x WiFi Dual Band – (Black)  
M980-BW-6C2W: Multi MIMO x 6 Cellular 3G 4G 5G CBRS / MIMO 2 x WiFi Dual Band – (White)

M980-BB-8C: Multi-MIMO 8 x Cellular 3G 4G 5G CBRS – (Black)  
M980-BW-8C: Multi-MIMO 8 x Cellular 3G 4G 5G CBRS – (White)

M980-BB-8W: Multi MIMO 8 x WiFi Dual Band – (Black)  
M980-BW-8W: Multi MIMO 8 x WiFi Dual Band – (White)

M970 7-Element  
Configurations

M970-BB-4CG2W: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / GPS GNSS / MIMO 2 x WiFi Dual Band – (Black)  
M970-BW-4CG2W: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / GPS GNSS / MIMO 2 x WiFi Dual Band – (White)

M970-BB-2CG4W: MIMO x 2 Cellular 3G 4G 5G CBRS / GPS GNSS / Multi-MIMO 4 x WiFi Dual Band – (Black)  
M970-BW-2CG4W: MIMO x 2 Cellular 3G 4G 5G CBRS / GPS GNSS / Multi-MIMO 4 x WiFi Dual Band – (White)

M970-BB-4C3W: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / MIMO 3 x WiFi Dual Band – (Black)  
M970-BW-4C3W: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / MIMO 3 x WiFi Dual Band – (White)

M970-BB-6CG: Multi-MIMO 6 x Cellular 3G 4G 5G CBRS / GPS GNSS – (Black)  
M970-BW-6CG: Multi-MIMO 6 x Cellular 3G 4G 5G CBRS / GPS GNSS – (White)

M970-BB-6WG: Multi-MIMO 6 x WiFi Dual Band / GPS GNSS – (Black)  
M970-BW-6WG: Multi-MIMO 6 x WiFi Dual Band / GPS GNSS – (White)

M960 6-Element  
Configurations

M960-BB-2CG3W: MIMO x 2 Cellular 3G 4G 5G CBRS / GPS GNSS / MIMO 3 x WiFi Dual Band – (Black)  
M960-BW-2CG3W: MIMO x 2 Cellular 3G 4G 5G CBRS / GPS GNSS / MIMO 3 x WiFi Dual Band – (White)

M960-BB-2C4W: MIMO x 2 Cellular 3G 4G 5G CBRS / Multi-MIMO 4 x WiFi Dual Band – (Black)  
M960-BW-2C4W: MIMO x 2 Cellular 3G 4G 5G CBRS / Multi-MIMO 4 x WiFi Dual Band – (White)

M960-BB-4C2W: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / MIMO 2 x WiFi Dual Band – (Black)  
M960-BW-4C2W: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / MIMO 2 x WiFi Dual Band – (White)

M960-BB-6C: Multi-MIMO 6 x Cellular 3G 4G 5G CBRS – (Black)  
M960-BW-6C: Multi-MIMO 6 x Cellular 3G 4G 5G CBRS – (White)

M960-BB-6W: Multi-MIMO 6 x WiFi Dual Band – (Black)  
M960-BW-6W: Multi-MIMO 6 x WiFi Dual Band – (White)

M950 5-Element  
Configurations

M950-BB-2CG2W: MIMO x 2 Cellular 3G 4G 5G CBRS / GPS GNSS / MIMO 2 x WiFi Dual Band – (Black)  
M950-BW-2CG2W: MIMO x 2 Cellular 3G 4G 5G CBRS / GPS GNSS / MIMO 2 x WiFi Dual Band – (White)

M950-BB-2C3W: MIMO x 2 Cellular 3G 4G 5G CBRS / MIMO 3 x WiFi Dual Band – (Black)  
M950-BW-2C3W: MIMO x 2 Cellular 3G 4G 5G CBRS / MIMO 3 x WiFi Dual Band – (White)

M950-BB-4CG: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / GPS GNSS – (Black)  
M950-BW-4CG: Multi-MIMO x 4 Cellular 3G 4G 5G CBRS / GPS GNSS – (White)

M950-BB-4WG: Multi-MIMO x 4 WiFi Dual Band / GPS GNSS – (Black)  
M950-BW-4WG: Multi-MIMO x 4 WiFi Dual Band / GPS GNSS – (White)

M990 M980 M970 M960 M950 Low-Profile Series Mobility M2M IoT Antennas  
MIMO Cellular 4G LTE CBRS 5G NR / MIMO WiFi 6 / BT / GPS GNSS  
Built-In Ground Plane / Bolt Mount

Optional: Rugged M-Lander Adjustable Magnetic Mount Adapter  
Optional: L-Bracket Mount w/U-Bolt Set

Base Length 200mm (7.87") / Base Width 60mm (2.36")  
Height: 65mm (2.56")

Top View

Width  
60mm  
(2.36")



Length 200mm (7.87")

Side View

Height  
65mm  
(2.56")



Mounting Bolt  
Length 24mm (0.95")  
Diameter 25.4mm (1.0")



Optional: L-Bracket Mount  
w/U-Bolt Set  
Sold Separately



Optional: Rugged M-Lander  
Adjustable Magnetic Mount Adapter  
Sold Separately

M900 Low-Profile Series Antennas  
[w/ Optional M-Lander Mag Mount Adapter](#)  
*Sold Separately*



M900 Low-Profile Series Antenna  
[w/ Optional L-Bracket Mount](#)  
*Sold Separately*



M900 Low-Profile Series Antenna  
[w/ Optional L-Bracket Mount](#)  
*Sold Separately*