

M460F MIMO 2-Lead Low-Profile Series Mobility M2M IoT Antenna (FAKRA)

Multi-Carrier MIMO Cellular 4G LTE CBRS 5G NR / GPS GNSS / MIMO Multi Band WiFi 5 (2.4GHz ~5GHz) / Bluetooth (2.4GHz)

4G LTE CBRS 5G NR Frequency Range Bluetooth (2.4GHz) WiFi 5 Frequency Range	617-960MHz / 1710-5000MHz 2.4-2.5GHz / 4.9-5GHz (Concurrent)
4G CBRS 5G NR Avg. Peak Gain: <i>Isotropic</i> WiFi 5 / Bluetooth Avg. Peak Gain: <i>Isotropic</i>	(1.9dBi) 617-960MHz / (2dBi) 1710-3800MHz / (2dBi) 4900-5000MHz / (2.1dBi) CBRS 3.5GHz (2dBi) 2.4-2.5GHz / (2dBi) 4.9-5GHz
Typical Efficiency 4G 5G Elements	617-960MHz >70% 1710-3800MHz >70% 4900-5000MHz >85%
Typical Efficiency WiFi / Bluetooth Elements	>70%
Isolation 4G 5G Elements Isolation WiFi / Bluetooth Elements	>10dB >12dB
Correlation Co-efficient 4G 5G Elements Correlation Co-efficient WiFi / BT Elements	<0.2 <0.1
Nominal Impedance	50Ω
GPS GNSS Specifications	GPS Glonass Galileo QZSS BeiDou 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

Mechanical / Environmental Specifications

Antenna Housing	High Impact UV Stable ABS Polymer (Black or White) Housing Height: 28mm (1.1") / Base Diameter: 73.6mm (2.9")
Connector Types	FAKRA Connector Ends
15ft Coax Cables (All Cables Full Length)	Cellular 4G 5G AGA200 Coax / Multi Band WiFi Bluetooth AGA200 Coax / GPS GNSS AGA100 Coax * Custom cable length options are available
Bolt Mount Magnetic Mount / Adhesive Mount	Stainless Steel Mounting Bolt: Length 21.73mm (0.855") / Diameter 13.84mm (0.545") 3 x Commercial Grade Rare Earth Magnets w/Baseplate Pad (Includes 3M Adhesive Mount Pad)
Operating Temp	-40° / +80°C (-40° / +176°F)
Ingress Protection	IP69K



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 MIMO Multi-Band WiFi 5 / WiFi HaLow / Bluetooth
 Built-In Ground Plane / Bolt Mount / Mag Mount / Adhesive Mount

M460F MIMO 2-Lead Low-Profile Series Bolt Mount Antenna Configuration Options (FAKRA)

M460F 2-Element Bolt Mount Configurations

- M460F-BB-2C: MIMO 2 x Cellular 4G LTE CBRS 5G NR – (Black)
- M460F-BW-2C: MIMO 2 x Cellular 4G LTE CBRS 5G NR – (White)
- M460F-BB-2W: MIMO 2 x Multi-Band WiFi 5 – (Black)
- M460F-BW-2W: MIMO 2 x Multi-Band WiFi 5 – (White)
- M460F-BB-CG: Cellular 4G LTE CBRS 5G NR / GPS GNSS – (Black)
- M460F-BW-CG: Cellular 4G LTE CBRS 5G NR / GPS GNSS – (White)
- M460F-BB-CW: Cellular 4G LTE CBRS 5G NR / Multi-Band WiFi 5 – (Black)
- M460F-BW-CW: Cellular 4G LTE CBRS 5G NR / Multi-Band WiFi 5 – (White)



M460F MIMO 2-Lead Low-Profile Series Magnetic / Adhesive Mount Antenna Configuration Options (FAKRA)

M460F 2-Element Magnetic / Adhesive Mount Configurations

- M460F-MB-2C: MIMO 2 x Cellular 4G LTE CBRS 5G NR – (Black)
- M460F-MW-2C: MIMO 2 x Cellular 4G LTE CBRS 5G NR – (White)
- M460F-MB-2W: MIMO 2 x Multi-Band WiFi 5 – (Black)
- M460F-MW-2W: MIMO 2 x Multi-Band WiFi 5 – (White)
- M460F-MB-CG: Cellular 4G LTE CBRS 5G NR / GPS GNSS – (Black)
- M460F-MW-CG: Cellular 4G LTE CBRS 5G NR / GPS GNSS – (White)
- M460F-MB-CW: Cellular 4G LTE CBRS 5G NR / Multi-Band WiFi 5 – (Black)
- M460F-MW-CW: Cellular 4G LTE CBRS 5G NR / Multi-Band WiFi 5 – (White)



M460F MIMO 2-Lead Low-Profile Series Antenna Housing Color Options
 Black / White



Bolt Mount



Magnetic / Adhesive Mount



M460F MIMO 2-Lead Low-Profile Series Antenna Coax Cable Labels (FAKRA)
 CELL / WIFI / GPS

Cell FAKRA-D



WiFi FAKRA-I



GPS FAKRA-C



Bluetooth FAKRA-G



M460F Low-Profile Series Antenna Include Built in Ground Plane / Full Length 15ft Coax Cables
 "Built To Spec" Custom Cable Options are Available. Contact us for details.





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Supported Cellular Service Provider Networks

Verizon	<p>Verizon 4G LTE 5G NR Bands 4G LTE: B2 B4 B5 B13 B46 B48 B66 (CBRS B48) 5G NR: N2 N5 N66 N77</p> <p>Carriers (MVNOs) using Verizon Network: <i>Reach Mobile, Red Pocket Mobile, Spectrum Mobile, Ting Total, Tracfone, Twigby, US Mobile, Visible, Xfinity Mobile</i></p>
T-Mobile	<p>Mobile 4G LTE 5G NR Bands 4G LTE: B2 B4 B5 B12 B25 B26 B41 B48 B66 B71 (CBRS B48) 5G NR: N25 N41 N66 N71</p> <p>Carriers (MVNOs) using T-Mobile Network <i>Mint Mobile, TextNow, Lyca Mobile, Metro, Red Pocket Mobile Republic Wireless, Simple Mobile, Ting, Tracfone, US Mobile</i></p>
AT&T	<p>AT&T 4G LTE 5G NR Bands 4G LTE: B2 B4 B5 B12 B14 B17 B29 B30 B48 B66 (CBRS B48) GSM: 1900MHz 5G NR: N2 N5 N66 N77</p> <p>Carriers (MVNOs) using AT&T Network <i>Cricket Wireless, Net 10 Wireless, Red Pocket Mobile, Straight Talk</i></p>

Supported Cellular Bands

5G NR Bands	n1 n2 n3 n5 n7 n8 n12 n13 n14 n18 n20 n25 n26 n28 n29 n30 n38 n40 n41 n48-CBRS n66 n71 n75 n76 n77 n78 n79 C-band
4G LTE Bands	B1 B2 B3 B4 B5 B7 B8 B12 B13 B14-FirstNet B17 B18 B19 B20 B25 B26 B28 B29 B30 B32 B38 B39 B40 B41 B42 B43 B46-LAA B48-CBRS B66 B71
3G Bands	B1 B2 B3 B4 B5 B6 B8 B9 B19

Supported WiFi IEEE Standards

WiFi 1-5	WiFi 1 WiF 2 (802.11ba) WiFi 3 (802.11g) WiFi 4 (802.11n) WiFi 5 (802.11ac)
* WiFi HaLow	WiFi HaLow (802.11ah) * Contact Us For M460F HaLow WiFi Configuration Options





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M460F MIMO 2-Lead Low-Profile Series Antenna
 Dimensions – Bolt Mount

M460F MIMO 2-Lead Low-Profile Series
 Bolt Mount

Height: 28mm (1.1") / Diameter: 73.6mm (2.9")



Stainless Steel Mounting Bolt
 Length 21.73mm (0.855")
 Diameter 13.84mm (0.545")

M460F MIMO 2-Lead Low-Profile Series
 Bolt Mount



Stainless Steel Mounting Bolt
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Anti-Rotation Perma-Seal
 Adhesive Baseplate Pad

M460F Low-Profile Series Antenna Include Built in Ground Plane / Full Length 15ft Coax Cables
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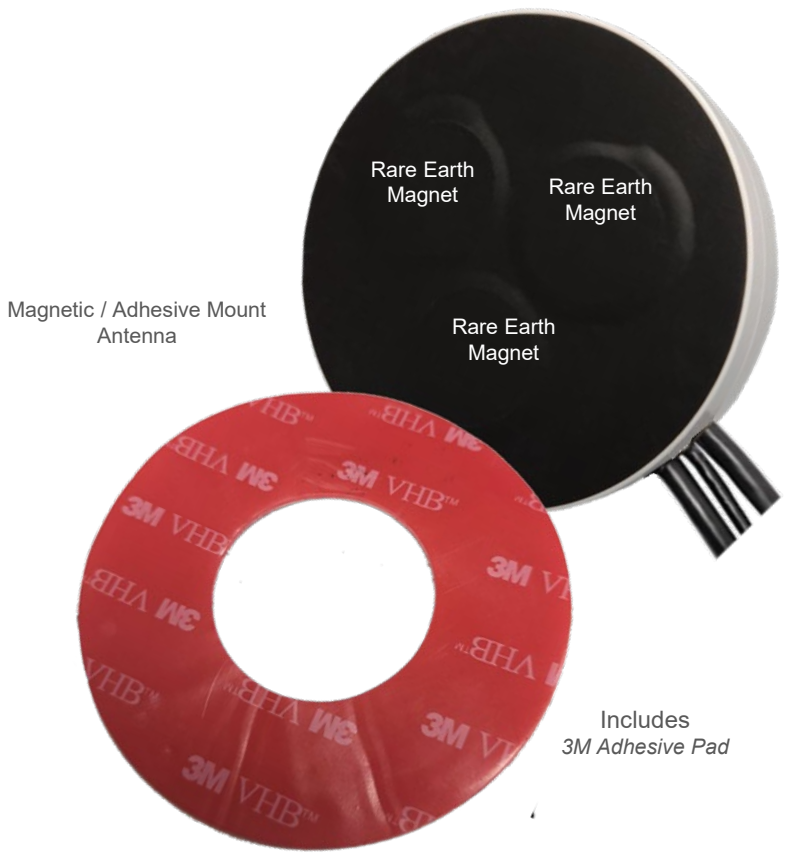
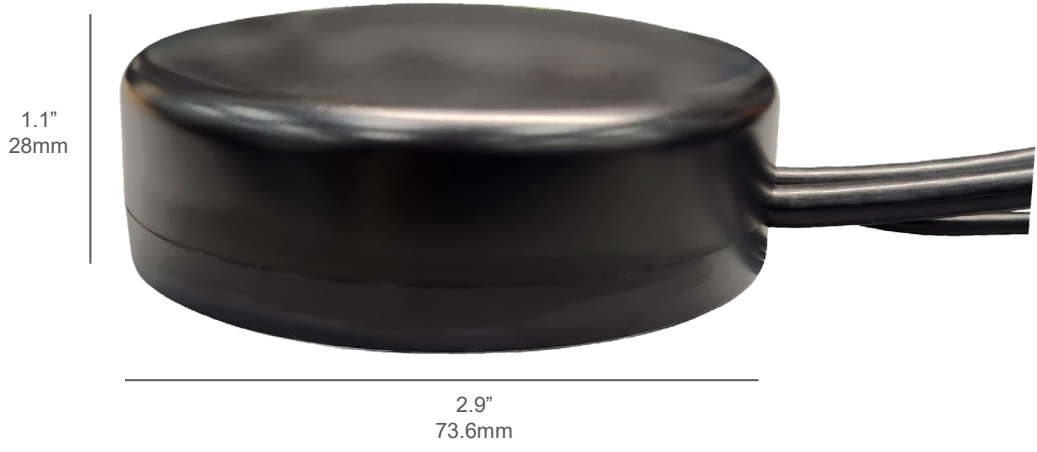


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M460F MIMO 2-Lead Low-Profile Series Antenna
 Dimensions – Magnetic / Adhesive Mount

M460F MIMO 2-Lead Low-Profile Series
 Magnetic / Adhesive Mount Antenna

Height: 28mm (1.1") / Diameter: 73.6mm (2.9")



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M460F MIMO 2-Lead Low-Profile Series Antenna
 Optional L-Bracket Mount
 (Sold Separately)

M460F Low-Profile Series Bolt Mount Antenna
 w/ Optional L-Bracket Mount
 Sold Separately



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

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