



M530F M520F Enterprise Series Mobility M2M IoT Antennas (FAKRA)
 MIMO Cellular 4G LTE CBRS 5G NR / GPS GNSS
 MIMO Multi-Band WiFi 6 / WiFi HaLow / Bluetooth
 Built-In Ground Plane / Bolt Mount

M530F M520F Enterprise Series Mobility M2M IoT Antenna Specifications (FAKRA)	
Multi-Carrier MIMO Cellular 4G LTE CBRS 5G NR / GPS GNSS / MIMO Multi-Band WiFi 6 / WiFi HaLow / Bluetooth (2.4GHz)	
4G LTE CBRS 5G NR Frequency Range Bluetooth (2.4GHz) WiFi 6 Frequency Range	617-960MHz / 1710-6000MHz 2.4-2.5GHz / 4.9-6GHz (<i>Concurrent</i>)
4G CBRS 5G NR Avg. Peak Gain: <i>Isotropic</i> WiFi / Bluetooth Avg. Peak Gain: <i>Isotropic</i>	(3.5dBi) 617-960MHz / (6dBi) 1710-3800MHz / (7dBi) 4900-6000MHz / (5dBi) CBRS 3.5GHz (9dBi) 2.4-2.5GHz / (9dBi) 4.9-6GHz
Typical Efficiency 4G 5G Elements	617-960MHz >70% 1710-3800MHz >70% 4900-6000MHz >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: 81mm (3.2") / Base Diameter: 106mm (4.2")
Connector Types	FAKRA Connector Ends
15ft Coax Cables (All Cables Full Length)	Cellular 4G 5G AGA200 Coax / Multi Band WiFi AGA200 Coax / GPS GNSS AGA100 Coax (<i>Custom cable length options are available</i>)
Mounting Bolt	Stainless Steel Mounting Bolt: Length 20mm (0.8") / Diameter 19mm (0.75") w/Anti Rotation Perma-Seal Baseplate Pad
Operating Temp	-40° / +80°C (-40° / +176°F)
Ingress Protection	IP69K

M530F M520F Enterprise Series Antennas 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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Antenna Configuration Options (FAKRA)

<p>M530F 3-Element Configurations</p>	<p>M530F-BB-2CG: MIMO 2 x Cellular 3G 4G 5G CBRS / GPS GNSS – (Black) M530F-BW-2CG: MIMO 2 x Cellular 3G 4G 5G CBRS / GPS GNSS – (White) M530F-BB-2WG: MIMO 2 x Multi-Band WiFi 6 / GPS GNSS – (Black) M530F-BW-2WG: MIMO 2 x Multi-Band WiFi 6 / GPS GNSS – (White) M530F-BB-CGW: Cellular 3G 4G 5G CBRS / GPS GNSS / Multi-Band WiFi 6 – (Black) M530F-BW-CGW: Cellular 3G 4G 5G CBRS / GPS GNSS / Multi-Band WiFi 6 – (White)</p>
<p>M520F 2-Element Configurations</p>	<p>M520F-BB-2C: MIMO x 2 Cellular 3G 4G 5G CBRS – (Black) M520F-BW-2C: MIMO x 2 Cellular 3G 4G 5G CBRS – (White) M520F-BB-2W: MIMO 2 x Multi-Band WiFi 6 – (Black) M520F-BW-2W: MIMO 2 x Multi-Band WiFi 6 – (White) M520F-BB-CG: Cellular 3G 4G 5G CBRS / GPS GNSS – (Black) M520F-BW-CG: Cellular 3G 4G 5G CBRS / GPS GNSS – (White) M520F-BB-WG: Multi-Band WiFi 6 / GPS GNSS – (Black) M520F-BW-WG: Multi-Band WiFi 6 / GPS GNSS – (White) M520F-BB-CW: Cellular 3G 4G 5G CBRS / Multi-Band WiFi 6 – (Black) M520F-BW-CW: Cellular 3G 4G 5G CBRS / Multi-Band WiFi 6 – (White)</p>

M530F M520F Enterprise Series Antenna Housing Color Options

Black / White



M530F M520F Enterprise Series Antenna Coax Cable Labels (FAKRA)

CELL / WIFI / GPS

Cell FAKRA-D



WiFi FAKRA-I



GPS FAKRA-C



Bluetooth FAKRA-G





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Supported Cellular Service Provider Networks	
Verizon	Verizon 4G LTE 5G NR Bands 4G LTE: B2 B4 B5 B13 B46 B48 B66 (CBRS B48) 5G NR: N2 N5 N66 N77 Carriers (MVNOs) using Verizon Network: <i>Reach Mobile, Red Pocket Mobile, Spectrum Mobile, Ting Total, Tracfone, Twigby, US Mobile, Visible, Xfinity Mobile</i>
T-Mobile	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 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>
AT&T	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 Carriers (MVNOs) using AT&T Network <i>Cricket Wireless, Net 10 Wireless, Red Pocket Mobile, Straight Talk</i>
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 1-6	WiFi 1 WiF 2 (802.11ba) WiFi 3 (802.11g) WiFi 4 (802.11n) WiFi 5 (802.11ac) WiiFi 6 6E (802.11ax)
* WiFi HaLow	WiFi HaLow (802.11ah) * Contact Us For M500 HaLow WiFi Configuration Options



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M530F M520F Enterprise Series Antenna
Dimensions

Base Diameter 106mm (4.2") / Height: 81mm (3.2")



Stainless Steel Mounting Bolt
Length 20mm (0.80")
Diameter 19mm (0.75")





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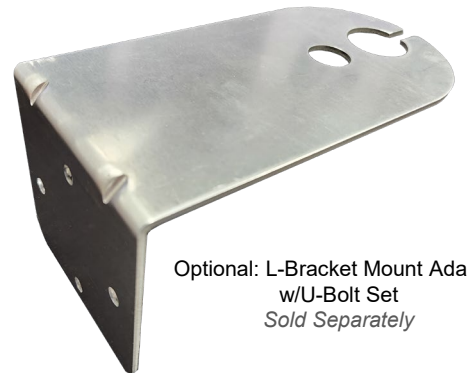
M530F M520F Enterprise Series Antenna
Optional Mounting Adapters

M500 Enterprise Series Antenna
 w/ Optional M-Lander Mag Mount Adapter
M-Lander Sold Separately



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

M500 Enterprise Series Antenna
 w/ Optional L-Bracket Mount Adapter
L-Bracket Sold Separately



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

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