

MAESTRO MODEMS AND ROUTERS

ANTENNA SELECTION GUIDE

PREAMBLE

This document is primarily about cellular and, if need be, GPS or GNSS antennas.

As for Wi-Fi antennas, please use our **ACC-A24** (quite affordable) or **ACC-A21** (less so). One of them only for E200 and E210 series, a pair of them for E220 Lite, E220 Mk II, E220, E700 Lite and E700 series.

As for other antennas, such as cellular antennas covering band B31 @450 MHz, remote antennas for S40 series, etc., please consult us.

M111 / M115 / E215 / E225 LITE

ALSO, 'SUBJECT TO MOQ AND OTHER CONSIDERATIONS' E225 MK II

1. Pleased with an L-shaped antenna?
ACC-A11 (non-hinged, mind you).
2. If not, pleased with a remote antenna with a magnetic base?
IP33-rated ACC-A17A (3-metre coax) or IP65-rated ACC-A01 (2^{·5}-metre coax).
3. We recommend otherwise our remote (3-metre coax), adhesive, IP33-rated, **ACC-A31** (quite affordable) or **ACC-A31H** (less so, and devoid of any IP rating) – even though those devices do not require an LTE antenna, a 3G antenna would suffice.

M100 CDMA ^{PLUS} / M100 3G / M100 CDMA ⁴⁸⁵ / M100 3G ⁴⁸⁵ / E205

The same considerations as at previous section “M111 / M115 / E215 / E225 Lite” apply, unless you intended to make use of the GPS feature ¹ of those devices.

In that latter case, case either:

1. add our remote (3-metre coax) with a magnetic base, IP65-rated, ACC-A03, to ACC-A11 (case #1); or ACC-A17A or ACC-A01 (case #2); or ACC-A31 or ACC-A31H (case #3); or
4. use our recommended ‘two-in-one,’ meaning here LTE + GNSS, remote (2^{·5}-metre coax), adhesive, IP67-rated, **ACC-A14** ² – even though those devices do not require an LTE and a GNSS antenna, a 3G and a GPS antenna would suffice.

M112 / M113 / E213

1. Pleased with an L-shaped, hinged, antenna?
ACC-A25.

¹ *i.e. gpsOne.*

² *This is the original antenna with two SMA connectors from which derives FALCOM’s FAL-ANT-14, which comes with two FAKRA connectors instead. You may want to look at ACC-A14 as an ACC-A31 or, more accurately, ACC-A31H with a GNSS antenna added.*

2. We recommend otherwise our remote (3-metre coax), adhesive, IP33-rated, **ACC-A31** (quite affordable) or **ACC-A31H** (less so, and devoid of any IP rating).
3. Insisting on a magnetic base? Either:
 - ACC-A25, attached to ACC-AE01 remote extension (3-metre coax); or
 - higher priced ACC-A26³ (1-metre coax), until stocks last, or ACC-A26A³ (3-metre coax).

M113G / E225G Mk II / E225

ALSO, 'SUBJECT TO MOQ AND OTHER CONSIDERATIONS' E213G / E215G

The same considerations as at previous section "M112 / M113 / E213" apply, unless you intended to make use of the GNSS feature ⁴ of those devices.

In that latter case, we recommend our 'two-in-one,' meaning here LTE + GNSS, remote (2⁵-metre coax), adhesive, IP67-rated, **ACC-A14**² – even though E215G, E225G Mk II and E225 do not require an LTE antenna, a 3G antenna would suffice.

M114⁵ / E214 / E218 / E708 LITE / E708

ALSO, 'SUBJECT TO MOQ AND OTHER CONSIDERATIONS' E228 Mk II

1. Pleased with a pair of L-shaped, hinged, antennas?
ACC-A25 [pair of].
2. We recommend otherwise our 'two-in-one,' meaning here LTE x 2, remote (3-metre coax), adhesive, IP67-rated, **ACC-A32**⁶ (quite affordable) or **ACC-A32H**⁶ (less so).
3. Insisting on magnetic bases? Pair of either:
 - ACC-A25, attached to ACC-AE01 remote extension (3-metre coax); or
 - higher priced ACC-A26³ (1-metre coax), until stocks last, or ACC-A26A³ (3-metre coax).

E214G / E708G LITE / E708G

ALSO, 'SUBJECT TO MOQ AND OTHER CONSIDERATIONS' E218G

The same considerations as at previous section "M114 / E214 / E218 / E708 Lite / E708" apply, unless you intended to make use of the GNSS feature ⁷ of those devices.

In that latter case, we recommend our 'three-in-one,' meaning here LTE x 2 + GNSS, remote (3-metre coax), adhesive, IP67-rated, **ACC-A33**⁸ (quite affordable) or **ACC-A33H**⁸ (less so).

³ Note that the antenna proper of ACC-A26 or ACC-A26A is detachable from its magnetic base and can therefore be used as an L-shaped, hinged, antenna.

⁴ i.e. (i) Concurrent GPS, Galileo and either GLONASS or Beidou, in case of M113G and E225; or (ii) IZat™ gen. 8C gpsOne, in case of E213G; or (iii) Concurrent GPS and GLONASS, in case of E215G and E225G Mk II.

⁵ In case of M114#1J only, the following substitutions could be made: ACC-A11 for ACC-A25; and ACC-A17A or ACC-A01 for ACC-A26³ or ACC-A26A³.

⁶ You may want to look at ACC-A32 [resp. ACC-A32H] as a pair of ACC-A31 [resp. ACC-A31H].

⁷ i.e. (i) IZat™ gen. 8C gpsOne, in case of E214G and E218G; or (ii) whatever location capabilities their cellular engine boasts, in case of E708G Lite and E708G.

⁸ You may want to look at ACC-A33 [resp. ACC-A33H] as an ACC-A32 [resp. ACC-A32H] with a GNSS antenna added.

The same considerations as at penultimate section “M114 / E214 / E218 / E708 Lite / E708” apply, unless you intended to make use of the GPS or GNSS feature ⁹ of those devices.

In that latter case, the considerations below apply.

1. Pleased with a pair of L-shaped, hinged, antennas?
 Dual purpose LTE / GNSS ACC-A22 [pair of].
2. We recommend otherwise a pair of our dual purpose LTE / GNSS ACC-A26³ (1-metre coax), until stocks last, or **ACC-A26A**³ (3-metre coax).

IMPORTANT NOTE

*It is the leftmost antenna only that must be a relatively expensive dual purpose Cellular / GNSS ACC-A22, ACC-A26³ or **ACC-A26A**³. If you were absolutely confident not to mix up the antennas, the combination of an antenna from the section “M112 / M113 / E213” on the rightmost connector and a dual purpose LTE / GNSS ACC-A22, ACC-A26³ or **ACC-A26A**³ on the leftmost connector would be more affordable.*

SIMPLIFIED CONSIDERATIONS

Note that (i) all seven antennas listed in the summary table below are remote, adhesive and IP67-rated, except for ACC-A31, which is IP33-rated only, and ACC-A31H, which is devoid of any IP rating; and (ii) we assume that the GPS or GNSS feature of the devices listed in the right column’s cells is used; please refer to the left column’s cell of the same row otherwise.

<p>ACC-A31 or ACC-A31H</p> <p>M111, M112, M113, M115, E213, E215, E225 Lite</p> <p style="text-align: right;">E225 Mk II</p>	<p>ACC-A14²</p> <p>M100 CDMA^{plus}, M100 3G, M100 CDMA⁴⁸⁵, M100 3G⁴⁸⁵, M113G, E205, E225G Mk II, E225</p> <p style="text-align: right;">E213G, E215G</p>
<p>ACC-A32⁶ or ACC-A32H⁶</p> <p>M114, E214, E218, E708 Lite, E708</p> <p style="text-align: right;">E228 Mk II</p>	<p>ACC-A33⁸ or ACC-A33H⁸</p> <p>E214G, E708G Lite, E708G</p> <p style="text-align: right;">E218G</p>

Please refer to the section at the top of this page for other products such as E206, E228G Mk II, E224 and E228, as well as, when and if confirmed, M114G.

⁹ i.e. (i) *gpsOneXTRA*, in case of E206; or (ii) *IZat™ gen. 8C gpsOne*, in case of E228G Mk II; or (i) *Concurrent GPS, Galileo and either GLONASS or Beidou*, in case of E224 and E228, as well as, when and if confirmed, M114G.

ISM BAND ANTENNAS FOR S40 SERIES

Our high-performance ISM band dipole omni-directional antennas feature a radiation efficiency of 35% in free space. They are made of TPU, which allows for robust handling, while remaining lightweight

ORDER CODE	SUITED TO...
ACC-A48H	S47#SPC#01, S47#LPC#01, S47#T30#01, S47#H20T5#01, S47#420#01, S47#SPC#10, S47#LPC#10, S47#T30#10, S47#H20T5#10, S47#420#10
ACC-A49H	S47#SPC#07, S47#LPC#07, S47#T30#07, S47#H20T5#07, S47#420#07, S47#SPC#08, S47#LPC#08, S47#T30#08, S47#H20T5#08, S47#420#08