LANTRONIX

CONNECT SMART. DO MORE.

Mobility Accessories

We strive to build state-of-the-art devices, to optimize your performance the radio sub-systems must be paired with the right antenna. Find the optimal antenna based on your product requirements with our useful Antenna Selection Guide.

M111 / M115 / E215 / E225 LITE
ALSO, *'SUBJECT TO MOQ AND OTHER CONSIDERATIONS'* E225 MK II

We suggest the decision-making route below.

1. Do you want an L-shaped antenna?
   A11C0 (non-hinged), while stocks last.
2. If not, would you like a remote antenna fitted with a magnetic base?
   Either IP33-rated A17C1 (3-metre coax) or, while stocks last, IP65-rated A01X0 ($2^{.5}$-metre coax).
3. If not, **we recommend 3 options for the remote (3-meter coax), adhesive*, LTE** antennas listed below:**
   - **IP33-rated A31M0; or**
   - **A31H0 (devoid of any IP rating); or**
   - **IP67-rated A31H1.**

M100 3G / M100 3G *485*

The decision-making route suggested in the previous section 'M111 / M115 / E215 / E225 Lite' applies, unless you intended to make use of the GPS feature [1] of those devices. In that case, either:

4. Add our remote (3-metre coax), fitted with a magnetic base, IP65-rated, GPS antenna A03Q0, while stocks last, to A11C0 (route 1); A17C1 or A01X0 (route 2); A31M0, A31H0 or A31H1 (route 3); or
5. Preferably, **use the recommended remote (2.5-metre coax), adhesive*, IP67-rated, *'2-in-1'* (meaning here LTE** + GNSS) antennas listed below:**
   - **A14M0 [2]; or**
   - **A14H0 [3] (unsheathed).**

** Variants of the so-called 'permanent mount' type, or fitted with a magnetic base, are available, pending on MOQ and other considerations.*

*** Even though those devices would content themselves with a 3G antenna such as those listed at points 1 or 2.*

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1 *i.e. gpsOne.*

2 *You may want to look at A14M0 as an A31M0 with a GNSS antenna added.*

3 *This is the original antenna with two SMA connectors from which derives FOX3 series' 60618, which comes with two FAKRA connectors instead. You may want to look at A14H0 as an A31H0 with a GNSS antenna added.*

M113

We suggest the decision-making route below.

1. Do you want an L-shaped, hinged, antenna?
   A25C0.
2. If not, would you like with a remote antenna fitted with a magnetic base?
   Either A25C0, attached to ASEC0 remote extension (3-metre coax), or, while stocks last, A26J0 [4] (1-metre coax).
3. If not, **we recommend 3 options for the remote (3-metre coax), adhesive*, LTE antennas listed below:**
   - **IP33-rated A31M0; or**
   - **A31H0 (devoid of any IP rating); or**
   - **IP67-rated A31H1.**

M113G / E213G / E225
ALSO, *'SUBJECT TO MOQ AND OTHER CONSIDERATIONS'* E215G / E225G MK II

The decision-making route suggested in section 'M113' applies, unless you intended to make use of the GNSS feature [5] of those devices.

4. In that case, **we recommend 2 options for the remote (2.5-metre coax), adhesive*, IP67-rated, *'2-in-1'* (meaning here LTE + GNSS) antennas listed below:**
   - **A14M0 [2]; or**
   - **A14H0 [3] (unsheathed).**

M114 [6] / E214 / E218
ALSO, *'SUBJECT TO MOQ AND OTHER CONSIDERATIONS'* E228 MK II

We suggest the decision-making route below.

1. Do you need **a pair** of L-shaped, hinged, antennas?
   A25C0.
2. If not, would you like **a pair** of remote antennas fitted with a magnetic base?
   Either A25C0, each attached to an ASEC0 remote extension (3-metre coax), or, while stocks last, A26J0 [3] (1-metre coax).
3. If not, **we recommend 2 options for the remote (3-metre coax), adhesive*, IP67-rated, *'2-in-1'* (meaning here LTE + LTE) antennas listed below:**
   - **A32M0; or**
   - **A32H0 (unsheathed).**

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[4] *Note that the antenna proper of A26J0 is detachable from its magnetic base and can therefore be used as an L-shaped, hinged, antenna.*

[5] *i.e. (i) Concurrent GPS, Galileo and either GLONASS or Beidou, in case of M113G and E225; or (ii) Concurrent GPS and GLONASS, either Sony's CXD5603-based in case of E213G, or Qualcomm's SiRFstarV-based in case of E215G and E225G Mk II.*

[6] *In case of M114F005S only, the following substitutions could be made: A11C0 for A25C0; and A17C1 or A01X0 for A26J0 [4].*

E214G / E218G

The decision-making route suggested in the previous section 'M114 / E214 / E218' applies, unless you intended to make use of the GNSS feature [7] of those devices.

4. In that case, **we recommend 2 options for the remote (3-metre coax), adhesive*, IP67-rated, *'3-in-1'* (meaning here LTE + LTE + GNSS) antennas listed below:**
   - **A33M0 [8]; or**
   - **A33H0 [9] (unsheathed).**

M114G / E228G Mk II / E224 / E228

The decision-making route suggested in the previous section 'M114 / E214 / E218' applies, unless you intended to make use of the GNSS feature [10] of those devices, in which case we suggest the decision-making route below.

5. Do you want **a pair** of L-shaped, hinged, antennas?
   Dual-purpose LTE / GNSS A22H0.
6. If not, would you like **a pair** of remote antennas fitted with a magnetic base?
   Dual-purpose LTE / GNSS A26J0 [3] (1-metre coax), while stocks last.
7. If not, **we recommend2 options for a pair of the remote (3-metre coax), adhesive*, dual-purpose LTE / GNSS antennas listed below:**
   - **A31H0 – devoid of any IP rating; or**
   - **IP67-rated A31H1.**

   * *Variants of the so-called 'permanent mount' type, or fitted with a magnetic base, are available, pending on MOQ and other considerations.*

IMPORTANT NOTE: *It is the leftmost antenna only that **must be** a dual-purpose LTE / GNSS antenna. **If you are confident not to mix up the antennas**, the combination of an antenna from the section 'M113' on the rightmost connector and a dual-purpose LTE / GNSS antenna on the leftmost connector would be more cost-effective.*

FOX3 SERIES

We recommend our remote ($2^{.5}$-metre coax), adhesive*, IP67-rated, *'2-in-1'* (meaning here LTE + GNSS) **60618** (unsheathed) antenna.

* *Variants of the so-called 'permanent mount' type, or fitted with a magnetic base, are available, pending on MOQ and other considerations.*

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[7] *i.e. IZat™ gen. 8C gpsOne.*

[8] *You may want to look at A33M0 as an A32M0 with a GNSS antenna added.*

[9] *You may want to look at A33H0 as an A32H0 with a GNSS antenna added.*

[10] *i.e. (i) IZat™ gen. 8C gpsOne, in case of E228G Mk II; or (i) Concurrent GPS, Galileo and either GLONASS or Beidou, in case of M114G, E224 and E228.*

Other antennas

High gain cellular antennas

Please consult us.

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…
A48H0	- S410xUS; - S470x1S, S470x9S, S470xAS*
A49H0	- S470x2S, S470x5S, S470x7S, S470x8S*

* *1 ≤ x ≤ 7, depending on the model – seven currently, as (i) pulse counter; or (ii) light pulse counter; or (iii) thermometer; or (iv) hygrometer; or [any] analogue sensor of the (v) 4 mA ~ 20 mA (aka current loop); or (vi) 0 V ~ 10 V; or (vii) 0 V ~ 5 V type.*

Wi-Fi antennas

We recommend our L-shaped, hinged, A24C0, while stocks last or, preferably, **A21H0**. Only one is needed for the E210 series, **a pair** of them for E220 Lite, E220 Mk II and E220 series as well as SGX 5150 series and, if fitted with their Wi-Fi sub-system, EMG 7500 and EMG 8500 series.

Simple decision matrix – excl. FOX3 as well as S40 series

Note that (i) all nine antennas listed in the summary table below are remote, adhesive and IP67-rated, except for A31M0, which is IP33-rated only, and A31H0, 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 in the chart below is used; please refer to the left column of the chart if your application is without GNSS.

	w/o GNSS	w/ GNSS (*)
LTE-M1 or 3G	**ONE** **A31M0, A31H0 or A31H1** **for** **M113, E215, E225 Lite** M111, M115, E213, E225 Mk II	**ONE** **A14M0 or A14H0** **for** **M100 3G, M100 3G[485], M113G, E213G, E225** E215G, E225G Mk II
LTE cat. 1+	**ONE** **A32M0 or A32H0** **for** **M114, E214, E218 (**)** E228 Mk II	**ONE** **A33M0 or A33H0** **for** **E214G, E218G (***)** **ONE PAIR OF** **A31H0 or A31H1** **for** **E228G Mk II, E224, E228** M114G

* *Refer to the first column, same row, if you do not intend to use the GNSS feature of your device.*
** *Suited to EMG 7500 and EMG 8500 series too – if fitted with their cellular sub-system.*
*** ***Unsuited*** *to the EMG 7500 and EMG 8500 series; please use A32M0 or A32H0 instead, adding a separate* ***passive*** *GNSS antenna if you intended to benefit from the EMG line's location services.*

About Lantronix

Lantronix, Inc. is a global provider of hardware and software solutions for the Internet of Things (IoT) and Out-of-Band Management (OOBM). Lantronix enables its customers to provide intelligent, reliable, and secure IoT and OOBM solutions while accelerating t

ime to market. Lantronix's solutions dramatically simplify the creation, development, deployment, and management of IoT projects while providing quality, reliability and security across hardware, software, and solutions.

With three decades of proven experience in creating robust IoT technologies and OOBM solutions, Lantronix is an innovator in enabling its customers to build new business models, leverage greater efficiencies and realize the possibilities of the Internet of Things. Lantronix's solutions are deployed inside millions of machines at data centers, offices, and remote sites serving a wide range of industries, including energy, agriculture, medical, security, manufacturing, distribution, transportation, retail, financial, environmental, and government.

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