

MC Edge Ordering Guide V3.1

Model Selection

The MC Edge is a modular Remote Gateway (GW) and Remote terminal unit (RTU), which supports the following configurations:

- Add: Internal APX4000 ASTRO LMR Radio
- Add: Internal Cellular
- Add: Low Power Add - Wireless Sensor Gateway
- Add: Security
- Add: I/O Expansion

The customer independently must purchase an antenna according to the approved antenna list in the 'MC-EDGE_Owners_Manual' doc.

Antenna cable can be ordered from Motorola Solutions directly - optional (page 3).

The Main Model for the MC Edge is F0016A

Description Nomenclature	
MC IoT Main Model	F0016A

Mandatory Option

To order the MC Edge unit, the following option must add to the MC IoT Main Model:

Description Nomenclature	
ADD: MC Edge	VA01370AA

Select Options

CPU Plug-in Board – mandatory

There is a slot on the MC –EDGE units for an optional plug-in board.

Two options are available:

1. Contains Up to 1 RS232/RS485, Up to 1 Ethernet port and built-in APX4000
Supported in NA (North America) only

Description Nomenclature	
ADD: IOT MC-EDGE PLUG-IN BOARD	VA00290AA

2. Contains up to 2 RS232/RS485 and Up to 3 Ethernet ports
Supported in all regions

Description Nomenclature	
ADD: IOT MC-EDGE ENHANCED COMM PLUG-IN BOARD	VA00973AA

Internal Communication – The MC Edge supports Internal Cellular, LoRaWAN and LMR modules

The MC Edge allows to add 3 different communication options, as detailed below:

- LMR (Land mobile radio)
- LTE (Long-Term Evolution)
- LoRa (Long Range)

All combinations of the communication options are possible.

LMR – Supported in NA only

Two items must be ordered (1&2) and one is optional (3)

1. Obligatory
Type –

Description Nomenclature	
ADD: APX4000 FOR MC-EDGE	VA00600AA

2. Obligatory
Band – If VA00600AA is selected one of the below Bands must be added:

Description Nomenclature	
ADD: VHF RADIO	VA00913AA
ADD: UHF R1 RADIO	VA00914AA
ADD: UHF R2 RADIO	VA00915AA
ADD: 700/800MHZ RADIO	VA00916AA
ADD: 900MHZ RADIO	VA00917AA

3. Optional
Radio Licenses – must be selected with accordance to the frequency that is used
The following capabilities are provided to the MC Edge LMR radio with the radio licenses option: TDMA, Link Layer Authentication & Group text support

Description Nomenclature	
ADD: VHF Radio Option Licenses	VA00943AA
ADD: UHF R1 Radio Option Licenses	VA00944AA
ADD: UHF R2 Radio Option Licenses	VA00945AA
ADD: 700/800MHZ Radio Option Licenses	VA00946AA
ADD: 900MHZ Radio Option Licenses	VA00947AA

for the LMR option one antenna cable is required.

Description Nomenclature	
ANTENNA SMA TO N-TYPE CABLE	VA00948AA

LTE

Description Nomenclature

1. LTE Device Type -

ADD: LTE MODEM FOR EDGE HUB

VA00610AA

2. Operator per Region– If VA00610AA is selected one of the below options must be added:

Description Nomenclature

ADD: VERIZON USA MODEM FOR EDGE HUB

VA00611AA

ADD: LTE MODEM FOR EU - MC EDGE

VA00613AA

ADD: LTE MODEM FOR AUSTRALIA - MC EDGE

VA00616AA

LoRaWAN -Wireless Sensors Network

1. LoRaWAN Device Type -

Description Nomenclature

VA00630AA

ADD: LORA MODULE FOR EDGE HUB

2. Band per Region - If VA00630AA is selected one of the below options must be added:

Description Nomenclature

ADD: LORA 902 - 928 MHZ FOR MC US/CANADA

VA00631AA

ADD: LORA 863 - 870 MHZ FOR MC-EDGE EU

VA00632AA

ADD: LORA 915 - 928 MHZ AUSTRALIA FOR MC-EDGE

VA00637AA

If LTE or LoRaWAN options are selected, antenna cable is required.

For LTE option the quantity of antenna cable that required is Two,

For the LoRaWAN option required one antenna cable.

Description Nomenclature

ANTENNA SMA TO N-TYPE CABLE

VA00948AA

Security Options

The MC Edge Security Suit are sets of cyber-security features which support the FIPS 140-2 Level 1 SW cryptography. To obtain a complete suite, the following options must be selected along with ordering the Secured STS Tool (FVN5973)

Description Nomenclature

ADD: SW Security Enable

VA01360AA

Description Nomenclature

CD SW ACE3600 SECURED SYS TOOL SUITE VER. 18.50

FVN5973D

Note - before ordering FVN5973D Need end customer export license approval

After receiving FVN5973D please contact the IoT support in- iiot.support@motorolasolutions.com for upgrade options.

DIN Rail Installation Kit, Module Covers

When the WALL MOUNT INSTALLATION KIT is ordered, a number of din rails are generated according to the other options selected. For example, if no I/O Modules are ordered, a shorter length of din rail is provided – if I/O modules are ordered, a longer din rail is provided. If radio options are ordered, another length of din rail is provided to mount the radio and the radio power supply.

Description Nomenclature	
ADD: WALL MOUNT INSTALLATION KIT	VA00148AA

I/O Modules

The maximum number of models that can be ordered is 5 .

When ordering the DI/AI module, a second option must be ordered to specify the voltage/current spec of the module. For example, to order one DI/AI 0-5V module and one DI/AI 0-20mA module, Qty 2 VA00150AA, Qty 1 VA00151AA, and Qty 1 VA00152AA have to be ordered. To order 2 DI/AI 0- 20mA modules, Qty 2 VA00150AA and Qty 2 VA00152AA would be ordered. The total quantity of options VA00151AA and VA00152AA must always equal the quantity of VA00150AA.

Description Nomenclature	
ADD: 12DI/8AI HW ONLY NO LIC	VA00150AA

Description Nomenclature	
ADD: 0 - 5V DI/AI	VA00151AA
ADD: 0 - 20MA DI/AI	VA00152AA

Description Nomenclature	
ADD: 8DO/2AO HW ONLY NO LIC	VA00149AA

Mixed I/O

Module option is available only for RTU (F0016A). Up to two total models (DI/AI,DO/AO/,Mixed I/O) can be ordered (2 of a kind or 1 of each).

Description Nomenclature	
ADD:MIXED IO 7DI/6DO/1AO/4AI 0-20MA	VA00599AA

Power Supply Cable

A DC Power Cable is required to connect to a 12V DC supply. The cable is fused. AC/DC power supplies are not available. There are two commercially available din rail mount AC/DC power supplies that have been certified to work with ACE 1000:

1. Manufacturer: TDK LAMBDA , PN DPP120-12-1. It is available at www.newark.com, PN 66M7752.

2. Manufacturer: ARTESYN EMBEDDED TECHNOLOGIES , PN ADN5-24-1PM-C. It is available at www.digikey.com, PN 454-1368-ND.

Description Nomenclature	
ADD: AC POWER SUPPLY 12V/120W DC OUT	VA00009AA
ADD: AC POWER SUPPLY 24V / 120W DC OUTPUT (LIMITED TEMP. -25 - +70)	VA00130AA
ADD:DC POWER CABLE	VA00155AA

External Radios

(Available in North America region only)

Two items are required to order an External radio – the system type (ASTRO Mobile is available), and the equipment type (mobile, portable, frequency band). The installation kit is included with the radio. The radio power supply is NOT included, and must be ordered separately.

Radio System Options

Description Nomenclature	
ADD: ASTRO 25 DIGITAL TRUNKING	VA00196AA
ADD: ASTRO 25 DIGITAL CONVENTIONAL	VA00197AA

Description Nomenclature	
ADD: VHF MOBILE RADIO	VA00160AA
ADD: UHF R1 MOBILE RADIO	VA00161AA
ADD: UHF R2 MOBILE RADIO	VA00162AA
ADD: 700/800MHZ MOBILE RADIO	VA00201AA

Installation kits

When Radio is ordered in the regions an option to order the installation kit is available

The installation kit contains:

- Power cable
- Data cable
- Brackets to install on the DIN rail for the radio

Description Nomenclature	
ADD: APX6500 DIGITAL ACE 1000 INSTALLATION KIT	VA00588AA

External Analog Radios – Supported in NA only.

To add an external Analog Radio Cable Kit , a relevant radio modem is required.

Supported bands are: VHF, UHF-R1, UHF-R2, 7/800

Modem

RTX-12 Modem ,Two types Supplied by Tigertronics.

Description Nomenclature	
Type A for Mototrbo Radio	TBD
Type B for CMxxx Radio	TBD

- * Need to order separately from Tigertronics directly -
- By phone within the U.S. at (800) 822-9722.
- Outside the U.S. by phone at 011-541-474-6700. Our hours of operation for ordering by phone are 9AM to 5PM PST, Monday through Friday.
- By fax at (541) 474-6703.
- Through Tigertronics website at shop.tigertronics.com.

Cable Kit

Description Nomenclature

EXTERNAL MODEM MOTOTRBO ANALOG CABLE KIT

VA00976AA

EXTERNAL MODEM CM1XX ANALOG CABLE KIT

VA00977AA

Note-

CMxxx radio is obsolete - you can use only the installed radio in the field.

The Analog radio will be ordered separately.

Optional Analog radio for the customer to use as Independent purchase:

For NA - Mototrbo: XPR5350E, XPR5380E.

For EU - Mototrbo: DM4400E.

For more information please find

“RTU Port Configuration for the MotoTrbo Analog Radio using External FSK modem” file.

Accessories

there is one accessory available with the model (VA01370AA) – an extractor tool for easy and safe removal of the screw-in terminal connectors from the CPU and I/O modules.

Description Nomenclature

ADD: I/O MODULE EXTRACTOR TOOL

VA00153AA

Field Replacement Units (FRUs) –

The following FRUs can be ordered as standalone items.

ENHANCED IOT MC-EDGE CPU MAIN BOARD	FLN4583
IOT MC-EDGE PLUG-IN BOARD	FLN0121
IOT MC-EDGE ENHANCED COMM PLUG-IN BOARD	FLN4581
RS-232 DATA CABLE	FKN0022
TERMINAL BLOCK CONNECTOR EXTRACTOR	FKN0024
APX3000/4000 DATA CABLE	FKN0025
MOBILE RADIO POWER CABLE 100 CM	FKN0028
RS-485 PORT 120 OHM TERMINATION CABLE	FKN0030
DC POWER CABLE	FKN0033
APX6500 DATA CABLE	FKN0035
12DI/8AI MODULE +/- 20MA	FLN0050
12DI/8AI MODULE +/- 5V	FLN0051
8DO/2AO MODULE 0-20MA, 0-10V	FLN0052
MIXED IO CURRENT	FLN0116
GROUND CABLE	FKN0034
APX6500 INSTALLATION KIT	FLN0100
XPR5350 INSTALLATION KIT	FLN0093
XPR5350/80 CONNECT PLUS INSTALLATION KIT FOR ACE1000	FLN0115A
APX4000 INSTALLATION KIT	FLN0042A
MODEM LORA 902 to 928 MHz	FUG1900A
MODEM LORA 863 - 870 MHZ	FUG1901A
MODEM LORA 902 - 928 MHZ ENHANCED COMM	FUG1905A
MODEM LTE VERIZON	FUG1800A
MODEM LTE TELIT AUSTRALIA	FUG1805A
MODEM LTE TELIT EUROPE	FUG1806A
RJ45 TO RJ45 EXTENSION CABLE 1500MM	FKN8803A
DIN RAIL 26 CM	FHN0054
DIN RAIL 45 CM	FHN0056
DIN RAIL STOPPER	FHN0057
CPU PANEL COVER	FHN0058
I/O MODULE CONNECTOR COVER	FHN0059
SD COVER	FHN0060
TERMINAL BLOCK MALE 10 PIN 5MM	FHN0061
TERMINAL BLOCK MALE 3 PIN 5 MM	FHN0062
TERMINAL BLOCK MALE 2 PIN 5 MM	FHN0063
TERMINAL BLOCK MALE 4 PIN 3.5MM	FHN0064
RJ50 I/O MODULE CABLE	FHN0065

MOBILE RADIO DC CABLE 10FT	FKN0036
AC POWER SUPPLY 12V/120W DC OUT	FLN0096
AC POWER SUPPLY 24V/120W DC OUT	FLN0101
APX6500 136-174 MHZ (A+D)	FUD1041A
APX6500 380-470 MHZ (A+D)	FUE1250A
APX6500 450-520MHZ (A+D)	FUE1251A
APX6500 700/800 MHZ (A+D)	FUF1201A
APX4000 900 MHZ RADIO TWO KNOB	FUF1820B
APX4000 700/800 MHZ RADIO TWO KNOB	FUF1812B
ACCESSORY KIT,CABLE KIT EXTERNAL MODEM MOTOTRBO ANALOG	FLN4722A
ACCESSORY KIT,CABLE KIT EXTERNAL MODEM CM140/200 ANALOG	FLN4723A