



# **Wireless Products**

# Accessories Ordering Guide

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# Revision History Table of Contents

Power Supplies for Cellular Products	4
AC Adaptor Power Supplies	5
Replacement Power Blades for AC adaptors	7
DC Power Cable	7
Power Supplies for Cellular Development Kits	8
Antennas for Cellular Products	9
<u>Cellular Antennas</u>	10
<u>GPS Antennas</u>	19
Combined Cellular and GPS Antennas	
<u>Wi-Fi/Bluetooth Antennas</u>	
<u>LoRa Antennas</u>	22
Interface Cables	22
Serial Cables	
USB Cables	22
USB Cables for QuickCarrier® USB-E	23
Ethernet Cables	24
<u>GPIO Cables</u>	24
MultiConnect® OCG Break out Board	25
RF Cables for Embedded Cellular Products	
Reverse SMA-to-MMCX	
SMA-to-UFL	
Reverse SMA-to-UFL	
Mounting Brackets	
MultiConnect® rCell 100 Series Cellular Routers	
MultiConnect® Cell and MultiConnect® eCell	
DIN Rail Mounting Kits	
MultiModem <sup>®</sup> Cell, iCell, rCell and MultiConnect <sup>®</sup> OCG, Condu	
MultiModem <sup>®</sup> Cell, iCell, rCell and MultiConnect <sup>®</sup> OCG, Condu	
MultiConnect® rCell, Cell and eCell	

# Introduction

The purpose of this document is to provide the reader guidance when ordering accessories for MultiTech wireless products. This document will not provide any guidance on the selection of the wireless/cellular product to order. Please contact your sales representative for guidance in selecting the appropriate product for your application.

When ordering wireless/cellular products, you will have the option to order an un-bundled product (no power supply, antennas, interface cables etc...) or a bundled version that includes the product, power supply, antennas and interface cables in the packaging. If you order a bundled product, you likely will not need to order any of the accessories contained in this ordering guide unless you need a replacement item. If you order an un-bundled version of the product, utilize this ordering guide to assist you in selecting the various accessories you will need to operate the device.

Throughout this document, you will see a reference to certain models of products. For example, an "H5" or "MTR" model. If your device has an "H5" or "MTR" as part of its ordering part number, then the comment is applicable to your device.

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http://www.multitech.com/documents/publications/marketing-guides/cellular-products-accessoriesordering-guide.pdf

**Note:** The descriptions used in this document are descriptive in nature and might not match the descriptions located on the price list, web site or order documentation. Please reference those documents for the appropriate description.

Features and specifications are subject to change without notice.

# Power Supplies for Cellular Products

MultiTech cellular products operate on DC voltages. You can elect to power the cellular product with the following options:

- An AC adaptor that provides DC power to the cellular product
- Your own source of DC voltage

For the majority of products, the DC connection is made with a screw-on locking barrel connector.

#### Options for Powering Cellular Devices with an AC Adaptor

For use with all models of cellular devices and the MTOCG-BOB-DK.

**Note:** MultiModem<sup>®</sup> Cell products with a –U designation (e.g. MTCBA-H5-U) and MultiConnect<sup>®</sup> Cell USB versions (e.g. MTC-H5-B03-KIT) operate on USB bus power and do not require a separate power supply.

**Note:** The description below contains the ISO country code for the type of AC power plug that is included with the power supply. For example, CN includes a Chinese power plug. These power supplies are rated for a maximum of 1.7 amps output.

Order PN	Description	Picture
ps-9vcb-lbc-u-nam	100-240VAC/9VDC US Power Supply w/Locking Barrel	
PS-9VCB-LBC-U-EU	100-240VAC/9VDC EU Power Supply w/Locking Barrel	
PS-9VCB-LBC-U-GB/IE	100-240VAC/9VDC UK Power Supply w/Locking Barrel	
PS-9VCB-LBC-U-AU/NZ	100-240VAC/9VDC AU Power Supply w/Locking Barrel	
PS-9VCB-LBC-U-CN	100-240VAC/9VDC CN Power Supply w/Locking Barrel	

# Replacement Power Blades for AC adaptors

For use with power supply models starting with ordering part number PS-9VCB-LBC-U-xx listed on page 6 or the PS-9VCB-SBC-U-xx listed on page 9.

Order PN	Description	Picture
PB-NAM	US style locking power blade	
PB-EU	European style locking power blade	
PB-GB	UK style locking power blade	
PB-AU	Australian style locking power blade	
PB-CN	Chinese style locking power blade	

Options for Powering the Cellular Device with your own Source of DC Voltage			
Order PN	Description	Picture	
FPC-532-DC	DC Power Cable (w/Inline Fuse) (5 ft)		
Notes:			

MultiConnect® rCell 100 series (MTR-xx models) and MultiConnect® Cell (MTC-xx models) products that utilize the FPC-532-DC power cable for general use must be connected to a UL listed LPS or Class 2 power supply. These products are UL 201 certified for in-vehicular use and must use the FPC-532-DC power cable for these installations.

For use with the following	products:			
	Universal Socket Developer Kit	MultiConnect® Developer Kit	OCG-E	
	MTSMI-UDK	MT100EOCG-D	K	
	MTUDK2-ST-CELL			
-	ow contains the ISO countr or example, CN includes a C Itput.		-	
Order PN	Descripti	on		Picture
PS-9VCB-SBC-U-NAM	100-240VAC/9VDC US Pov w/Push-on Barrel	ver Supply		
PS-9VCB-SBC-U-EU	100-240VAC/9VDC EU Pov w/Push-on Barrel	ver Supply	(and)	
PS-9VCB-SBC-U-GB/IE	100-240VAC/9VDC UK Pov w/Push-on Barrel	wer Supply	Chinh	
PS-9VCB-SBC-U-AU/NZ	100-240VAC/9VDC AU Pov w/Push-on Barrel	wer Supply		
PS-9VCB-SBC-U-CN	100-240VAC/9VDC CN Po w/Push-on Barrel	wer Supply		

# Antennas for Cellular Products

You must order the correct antenna that supports the frequency bands that your cellular product operates in. Note that certain models of MultiTech products support a feature called diversity. If you want to take advantage of the diversity feature, you will require two cellular antennas per device.

If you would like to order an antenna that combines the cellular and GPS antennas into a single magnetic mount antenna, skip to the section on combined cellular and GPS antennas.

# Frequency Bands: 850/900/1800/1900 MHz

For use with the following products (All varieties):

MultiConnect® rCell 100 Series	MultiConnect® Cell 100 Series	
MTR-C2	MTC-C2	
MTR-EV3	MTC-EV3	
MTR-EV3		

MultiModem <sup>®</sup> iCell	MultiModem <sup>®</sup> iSMS
MTCMR-C2	SF100-G
	SF400-G
	SF800-G

SocketModem <sup>®</sup> Cell	SocketModem® iCell	QuickCarrier® USB-E	MultiConnect® OCG-E
MTSMC-C2	MTSMC-C2-IP/GP	MT100UCC-C2	MT100EOCG-EV3
MTSMC-EV3	MTSMC-EV3-IP/GP	MT100UCC-EV3	

Order PN	Description	Picture
ANQB-1HRA	850/900/1800/1900 MHz Antenna, 7" (2 dBi)(1 Pk)	-M
ANQB-10HRA	850/900/1800/1900 MHz Antenna, 7" (2 dBi)(10 Pk)	See above
ANQB-50HRA	850/900/1800/1900 MHz Antenna, 7" (2 dBi)(50 Pk)	See above

For use with the	Fre following products (All varie	equency Bands: LTE		
<b>M</b> U MT	ItiConnect® rCell 100 Series R-LAT1 R-LVW2	MultiConnect® Conduit™ MTCDT-LAT1	SocketModem® Cell MTSMC-LAT1	
Order PN ANLTE1-2HRA	LTE Antenna, 9" (2 dBi)(2 P	<b>Description</b>	Pi	cture
		, , , , , , , , , , , , , , , , , , ,		
ANLTE1-10HRA	LTE Antenna, 9" (2 dBi)(10	Pk)	See	e above
ANLTE1-50HRA	LTE Antenna, 9" (2 dBi)(50	Pk)	See	e above

Frequency Bands: LTE For use with the following products (All varieties):				
MultiCo	nnect® rCell 100 Series	MultiConnect® Conduit™	SocketModem <sup>®</sup> Cell	Developer Kit
MTR-LEU	JI	MTCDT-LEU1	MTSMC-LEU1	MTUDK2-ST-CELL
		MTCDT-LVW2	MTSMC-LVW2	
Order P	N	Description		Picture
ANLTE2-2HR/	A LTE Antenna, 7" (3.5	5 dBi) (2 Pk)		
ANLTE2-10HR	RA LTE Antenna, 7" (3.	5 dBi)(10 Pk)		See above
ANLTE2-50HR	RA LTE Antenna, 7" (3.	LTE Antenna, 7" (3.5 dBi)(50 Pk)		

For use with the	<b>Frequer</b> following products (All varieties):	ncy Bands: LTE	
	MultiConnect® Cell 100 Serie	es SocketModem® Cell	
	MTC-LAT1	MTSMC-LAT3	
	MTC-LVW2	MTSMC-LVW3	
Order PN	Des	cription	Picture
ANLTE3-2HRA			
ANLTE3-10HRA	LTE Antenna, 7.5" (1 dBi)(10 Pk)		See above
ANLTE3-50HRA	LTE Antenna, 7.5" (1 dBi)(50 Pk)		See above

	Frequency Bands: 850/900/	/1700/1800/1900/2100 N	۸Hz
For use with the	following products (All varieties):		
	MultiConnect® rCell 100 Series	MultiConnect® Cell 100 Series	
	MTR-G3	MTC-G3	
	MTR-H6	MTC-C2-xx-N3	
Order PN	Descrip	tion	Picture
ANPB2-1HRA	850/900/1800/1900/2100 MHz Antenno	a, 4" (5 dBi)(1 Pk)	
ANPB2-10HRA	850/900/1800/1900/2100 MHz Antenno	a, 4" (5 dBi)(10 Pk)	See above
ANPB2-50HRA	850/900/1800/1900/2100 MHz Antenno	a, 4" (5 dBi)(50 Pk)	See above

	MultiMod	em® rCell	MultiModen	n® iCell	MultiModem <sup>®</sup> Cell	
	MTCBA-H	5-EN2	MTCMR-H5		MTCBA-H5	
	Mu	tiConnect® r	Cell 100 Series	MultiCon	nect® Cell 100 Series	
		R-H5 R-EV3		MTC-H5		
[	MultiConnect	<sup>®</sup> Conduit™	MultiConnect	® OCG-D	MultiConnect® AW	,
	MTCDT-H5		MTCDP-H5		MT200A2W-H5	
l	MTCDT-EV3					
	SocketMod	em® Cell	SocketMode	em <sup>®</sup> iCell	MultiConnect® OCC	G-E
	MTSMC-H5		MTSMC-H5-IF	0	MT100EOCG-H5	
	MultiConne	ct® PCle	QuickCarrier	r® USB-E	SocketModem® Shi	eld
	MTPCIE-H5		MT100UCC-H	15	MTSAS-DK	
Order P	Ν		Descrip	otion		Picture
anhb-1hra	850/900,	/1700/1800/1	1900/2100 MHz A	Antenna, 7''	(3 dBi)(1 Pk)	
ANHB-10HRA	850/900,	/1700/1800/1	1900/2100 MHz A	ntenna, 7"	(3 dBi)(10 Pk)	See above
ANHB-50HRA	0.50,000		1900/2100 MHz A			See above

### **Embedded Patch Antennas**

For use with the following products (All varieties):

MultiConnect® Dragonfly™
MTQ-H5
MTQ-EV3
MTQ-C2

Order PN	Description	Picture
anob-1emb	Octo-Band Embedded Patch Antenna (1 Pk)	Ethertcronica® PENTA to2292
ANOB-10EMB	Octo-Band Embedded Patch Antenna (10 Pk)	See above
ANOB-50EMB	Octo-Band Embedded Patch Antenna (50 Pk)	See above

# Frequency Bands: 900/1800 MHz (Typically used in Europe)

Other available antennas:

Order PN	Description	Picture
ANF1-1HRA	900/1800 MHz Antenna, 4" (0 dBi) (1 Pk)	$\checkmark$
ANF1-10HRA	900/1800 MHz Antenna, 4" (0 dBi) (10 Pk)	See above
ANF1-50HRA	900/1800 MHz Antenna, 4" (0 dBi) (50 Pk)	See above
ANF1-1MMQW	900/1800 MHz 1/4 Wave Antenna, Mag Mount, 4" (3 dBi)(1 Pk)	
ANF1-10MMQW	900/1800 MHz 1/4 Wave Antenna, Mag Mount, 4" (3 dBi)(10 Pk)	See above
ANF1-50MMQW	900/1800 MHz 1/4 Wave Antenna, Mag Mount, 4" (3 dBi)(50 Pk)	See above
ANF1-1MMHW	900/1800 MHz 1/2 Wave Antenna, Mag Mount, 12" (3 dBi)(1 Pk)	
ANF1-10MMHW	900/1800 MHz 1/2 Wave Antenna, Mag Mount, 12" (3 dBi)(10 Pk)	See above
ANF1-50MMHW	900/1800 MHz 1/2 Wave Antenna, Mag Mount, 12" (3 dBi)(50 Pk)	See above

Frequen	Frequency Bands: 850/1900 MHz (Typically used in North America)	
Order PN	Description	Picture
ANCF2-1HRA	850/1900 MHz Antenna, 4" (0 dBi) (1 Pk)	$\checkmark$
ANCF2-10HRA	850/1900 MHz Antenna, 4" (0 dBi) (10 Pk)	See above
ANCF2-50HRA	850/1900 MHz Antenna, 4" (0 dBi) (50 Pk)	See above
ANCF2-1MMQW	850/1900 MHz 1/4 Wave Antenna, Mag Mount, 4'' (3 dBi)(1 Pk)	
ANCF2-10MMQW	850/1900 MHz 1/4 Wave Antenna, Mag Mount, 4" (3 dBi)(10 Pk)	See above
ANCF2-50MMQW	850/1900 MHz 1/4 Wave Antenna, Mag Mount, 4" (3 dBi)(50 Pk)	See above
ANCF2-1MMHW	850/1900 MHz 1/2 Wave Antenna, Mag Mount, 12" (3 dBi)(1 Pk)	
ANCF2-10MMHW	850/1900 MHz 1/2 Wave Antenna, Mag Mount, 12" (3 dBi)(10 Pk)	See above
ANCF2-50MMHW	850/1900 MHz 1/2 Wave Antenna, Mag Mount, 12" (3 dBi)(50 Pk)	See above

	Frequency Bands: 850/900/1700/1800/1900/2100 N	١Hz
Order PN	Description	Picture
ANPB-1HRA	850/900/1700/1800/1900/2100 MHz Antenna, 3" (2 dBi)(1 Pk)	
ANPB-10HRA	850/900/1700/1800/1900/2100 MHz Antenna, 3" (2 dBi)(10 Pk)	See above
ANPB-50HRA	850/900/1700/1800/1900/2100 MHz Antenna, 3" (2 dBi)(50 Pk)	See above

# **GPS Antennas for Cellular Products**

**Note:** If you would like to order an antenna that combines the cellular and GPS antennas into a single magnetic mount antenna, skip to the section on combined cellular and GPS antennas.

Order PN	Description	Picture
angps-1mm	GPS Antenna, Mag Mount, 5 Meter Cable (1 Pk)	
angps-10mm	GPS Antenna, Mag Mount, 5 Meter Cable (10 Pk)	See above
angps-50mm	GPS Antenna, Mag Mount, 5 Meter Cable (50 Pk)	See above

## Combined Cellular and GPS Antennas Frequency Bands: 850/900/1700/1800/1900/2100 MHz (cellular)

For use with all products

Order PN	Description	Picture
angsm-gps-1mm	GSM/GPS Antenna, Mag Mount, 5 Meter Cable (1 dBi)(1 Pk)	
angsm-gps-10mm	GSM/GPS Antenna, Mag Mount, 5 Meter Cable (1 dBi)(10 Pk)	See above
angsm-gps-50mm	GSM/GPS Antenna, Mag Mount, 5 Meter Cable (1 dBi)(50 Pk)	See above

Note: MultiTech Wi-	<b>Wi-Fi/Bluetooth Antennas</b> Fi and Bluetooth products support operation of these technolog	aies in the 2.4 GHz band
	owing products (All varieties): SocketWireless® Bluetooth®	
Order PN	MTS2BTSMI Description	Picture
ANBT-1HRA	2.4 GHz Wi-Fi/Bluetooth Antenna, 4" (2 dBi)(1 Pk)	$\checkmark$
ANBT-10HRA	2.4 GHz Wi-Fi/Bluetooth Antenna, 4" (2 dBi)(10 Pk)	See above
ANBT-50HRA	2.4 GHz Wi-Fi/Bluetooth Antenna, 4" (2 dBi)(50 Pk)	See above

For use with the foll	owing products (All varieties): MultiConnect® rCell 100 Series MTR-xx	
Order PN	Description	Picture
ANWF-1HRA	2.4 GHz Wi-Fi/Bluetooth Antenna, 3" (1.8 dBi)(1 Pk)	
ANWF-10HRA	2.4 GHz Wi-Fi/Bluetooth Antenna, 3" (1.8 dBi)(10 Pk)	See above
ANWF-50HRA	2.4 GHz Wi-Fi/Bluetooth Antenna, 3" (1.8 dBi)(50 Pk)	See above

LoRa® Antennas Frequency Bands: 868/915 MHz					
MultiConnect® Conduit™	MultiConnect® mDot™ Box	Conduit™ LoRa® Accessory Kit	Developer Kit		
MTCDT-xx	MTDOT-BOX-G-xx	MTKIT-LORA-xx	MTUDK2-ST-MDOT		
			MTMDK-ST-MDOT		

Order PN	Description	Picture
AN868-915A-1HRA	868-915 MHz RP-SMA Antenna, 8'' (3.0 dBi)(1 Pk)	
AN868-915A-10HRA	868-915 MHz RP-SMA Antenna, 8'' (3.0 dBi)(10 Pk)	See above
AN868-915A-50HRA	868-915 MHz RP-SMA Antenna, 8'' (3.0 dBi)(50 Pk)	See above

Serial Cables			
Order PN	Description	Picture	
CA9-9-D	DE9M-DE9F Serial Cable (6 ft)		
CA-CDP-DEBUG	3-pin Serial Debug Cable (MTCDP, MTOCG and Developer Boards)		

USB Cables			
Order PN	Description	Picture	
CA-USB	USB Cable Type A to Type B (4 ft)		
CA-USB-A-MINI-B	USB Cable Type A to Type B Mini (4 ft)	Carl Barris	
CA-USB-A-MINI-B-3	USB Cable Type A to Type B Mini (24 AWG, 3 ft) (Compatible with MultiConnect Cell (MTC-xx) )		
CA-USB-A-MICRO-B-3	USB Cable Type A to Type B Micro (3 ft)	······································	

USB Data Cables for the QuickCarrier® USB-E Note: For use with all varieties of QuickCarrier® USB-E (MT100UCC) products.			
Order PN	Description	Picture	
MT100UCC-AK	MT100UCC Kit 2 USB Cables, Antenna & 8.5" SMA-UFL Coax Cable	N/A	
CA-UCC-USB-5P-4P	MT100UCC USB Cable, Mother Board 5 Pin-MT100UCC 4 Pin (10'')	See Below	
	38		
CA-UCC-USB-TP A-4P	MT100UCC USB Cable, USB Type A-MT100UCC 4 Pin (10")	See Below	

Ethernet Cables		
Order PN	Description	Picture
CA-RJ-45	Ethernet Cable (RJ-45, 6 ft)	

GPIO Cables		
Order PN	Description Picture	
CA-CMR-GPIO	6-Pin GPIO Cable for MTCMR iCell Intelligent Modems (5 ft)	
CA-CDP-GPIO	36-Pin GPIO Cable for MTCDP Series Programmable Gateway(12'')	
CA-MTAC-GPIO	GPIO Cable for MTAC-GPIO Accessory Card (2.5 ft)	

# MultiConnect® OCG Break out Board

The MultiConnect OCG Break-out Board is designed to be used with MultiTech's MTCDP and MT100EOCG series of Programmable Gateways. It provides a quick and easy way to simulate your application environment, exercise common analog and digital inputs, and quickly complete general purpose connections using the GPIO cable and quick-connects.

Features

- GPIO cable and GPIO connectors simplify testing needs
- Four analog potentiometers simulate sensor inputs
- Eight physical switches simulate digital signal inputs
- Jumpers enable additional power and ground options
- Package also includes power supply, US, UK and EU power plugs and GPIO cable

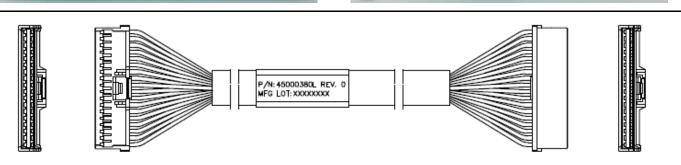
For use with the following models:

MTCDP-xx (All varieties) MT100EOCG-xx (All varieties)

Order PN	Description	Picture
MTOCG-BOB-DK	Programmable Gateway Break-Out Board (use with MTCDP and EOCG)	See below

REFERENCE





### **RF** Cables for Embedded Products

MultiTech embedded products contain surface mount RF connectors on the PCB that are used to interface with an RF cable and antenna. The RF cables listed below include an appropriate connector that interfaces with the surface mount connector on one end and a bulk head panel mount SMA connector on the other. For the cellular connection, a standard SMA connector is specified. For Wi-Fi and/or Bluetooth connections, a reverse polarity SMA (RSMA) connector is specified.

Reverse SMA-to-MMCX Antenna Cables			
<b>Note:</b> Used for the Wi-F the PCB.	Fi/Bluetooth connection with embedded models that utilize c	an MMCX connector on	
For use with the following products (All varieties):			
	SocketWireless® Bluetooth®		
	MTS2BTSMI		
Order PN	Description	Picture	
CARSMA-MMCX-1	Reverse SMA-to-MMCX Coax RF Cable, 6" (1 Pk)	See Above	
CARSMA-MMCX-10	-10 Reverse SMA-to-MMCX Coax RF Cable, 6" (10 Pk) See Above		
CARSMA-MMCX-50 Reverse SMA-to-MMCX Coax RF Cable, 6" (50 Pk) See Above			

				-
Z		••••		
or use with the	following products (All	varieties):		
5	SocketModem® Cell	SocketModem <sup>®</sup> iCell	MultiConnect® Dragonfly™	
1	MTSMC-G3	MTSMC-C2-IP/GP	MTQ-C2	
1	MTSMC-C2	MTSMC-EV3-IP/GP	MTQ-EV3	
1	MTSMC-EV3	MTSMC-H5-IP/GP	MTQ-H5	
1	MTSMC-H5			
1	MTSMC-LAT1			
1	MTSMC-LVW2			
1	MTSMC-LAT3			
1	MTSMC-LVW3			
	QuickCarrier <sup>®</sup> USB-E	MultiConnect® OCG	-E MultiConnect® PCIe	
	MT100UCC-C2	MT100EOCG-EV3	MTPCIE-H5	
	MT100UCC-EV3	MT100EOCG-H5		
	MT100UCC-H5			
Order PN	J	Description	Pict	ure
CASMA-UFL-1		ax RF Cable, 8" (1 Pk)	See A	
CASMA-UFL-10	SMA-to-UFL Co	ax RF Cable, 8" (10 Pk)	See A	bove

### Reverse SMA-to-UFL Antenna Cables

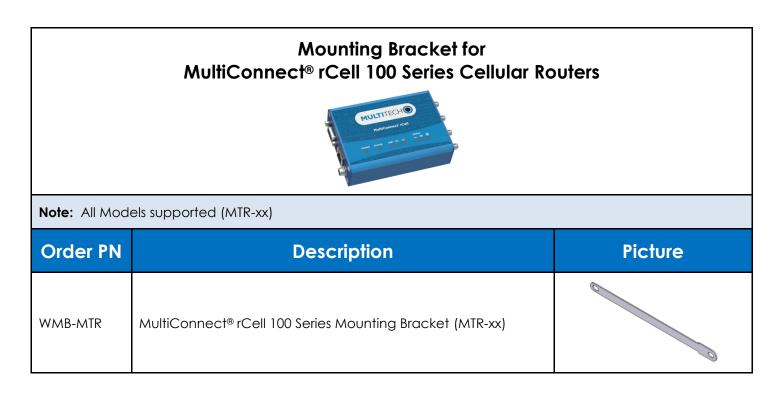
3 5

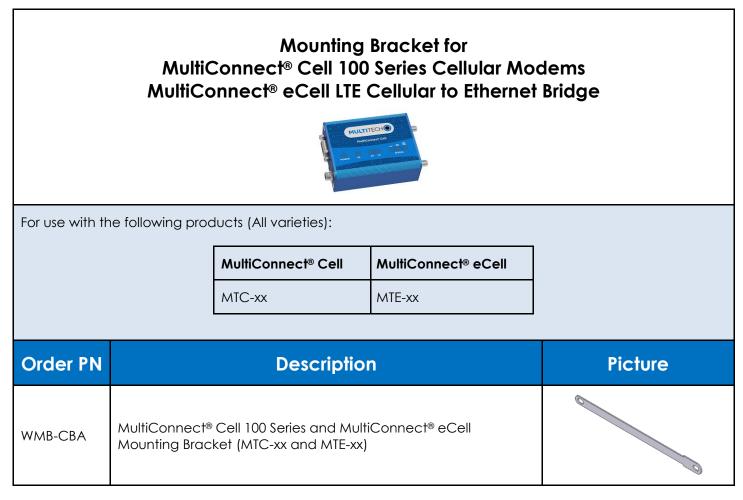
**Note:** Used for the Wi-Fi/Bluetooth connection with embedded models that utilize an UFL connector on the PCB.

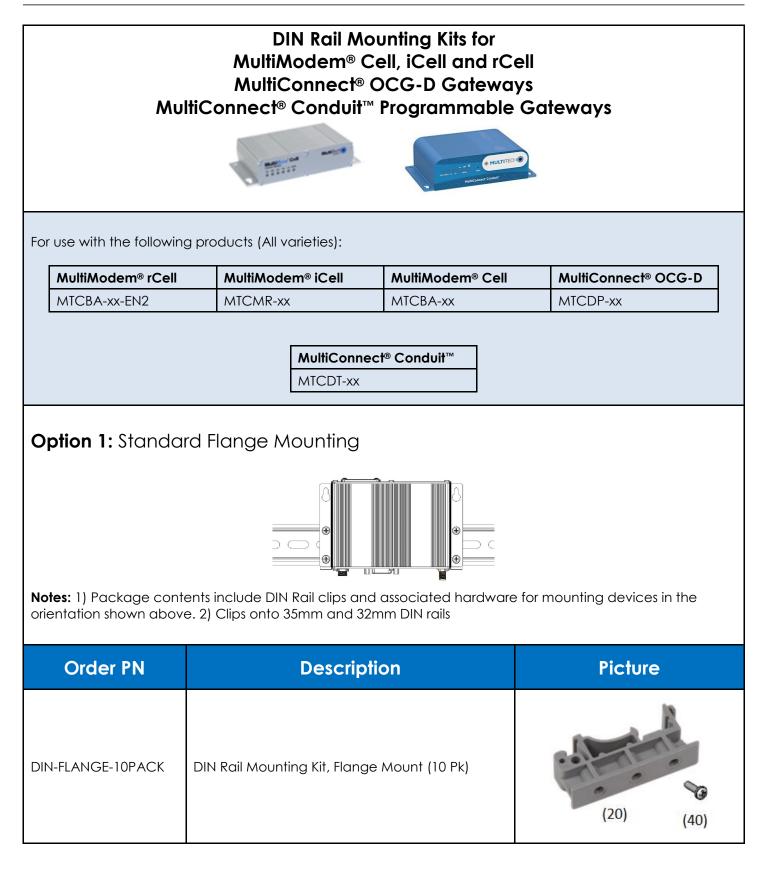
For use with the following products (All varieties):

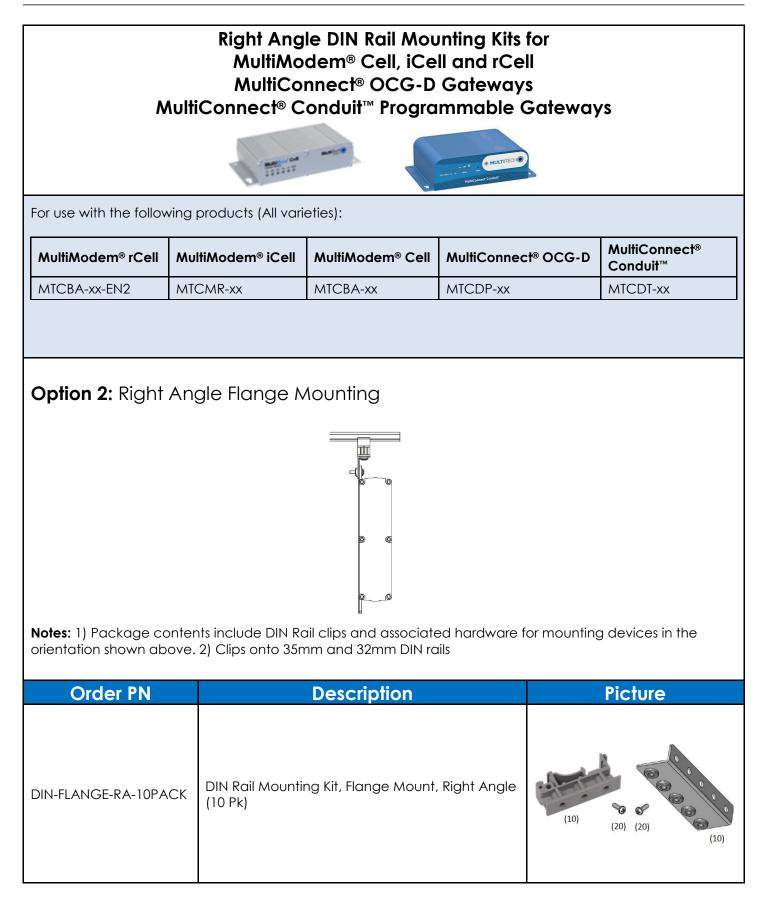
SocketWireless® Bluetooth®	MultiConnect® mDot™	MultiConnect® xDot™
MTS2BTSMI	MTDOT-868-xx-UFL	MTXDOT-xx
	MTDOT-915-xx-UFL	

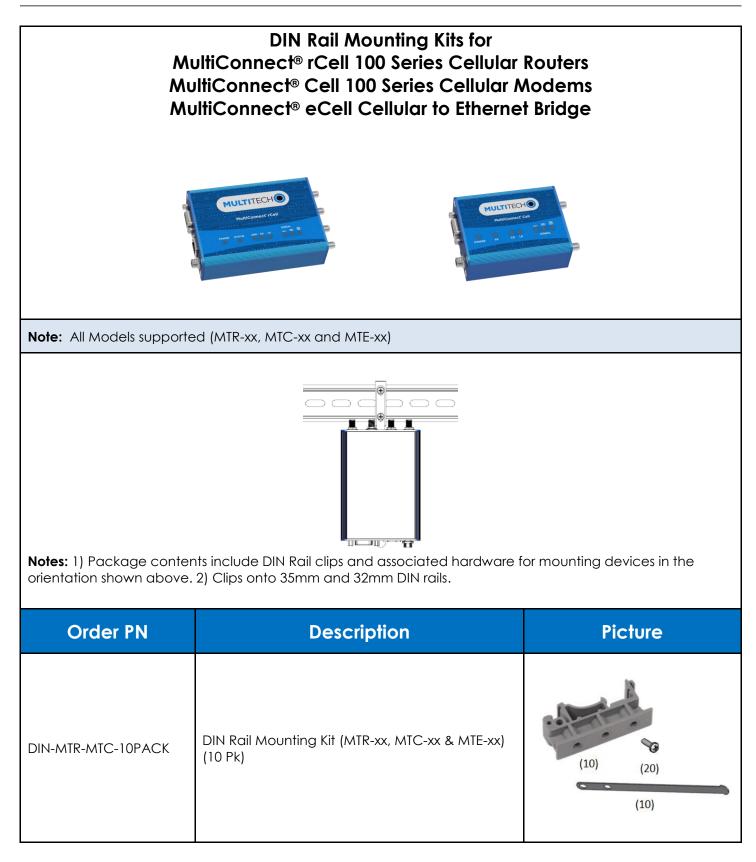
Order PN	Description	Picture
CARSMA-UFL-1	Reverse SMA-to-UFL Coax RF Cable, 6" (1 Pk)	See Above
CARSMA-UFL-10	Reverse SMA-to-UFL Coax RF Cable, 6" (10 Pk)	See Above
CARSMA-UFL-50	Reverse SMA-to-UFL Coax RF Cable, 6" (50 Pk)	See Above











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