Radio Interface Unit (RIU-4)

features and benefits |

Future ready
- All standard BTS/BDA cellular services are supported
- Per RIU-4, up to four services in any combination
- RIU combining option of up to two RIU-4 units

Automatic signal control via configurable AGC

Advanced management and control
- Remote setup, adjustments and monitoring through SC-450 controller connections
- Allows monitoring of receive and transmit signals from the operator's BTS/BDA equipment
- Programmable noise level reduction parameter
- Intuitive Web graphical user interface GUI

Flexible interfaces
- BTS/BDA modules can be installed in any order
- Simplex and duplex interface to BDA/BTS
- Supports up to four (4-port) base units (BU) or 8 (4-port) BUs using an expansion kit

Simple setup
RIU-4 is fully compatible with the current RIU-IM unit. Commissioning process is identical in all RIU models

The Quad-Band Radio Interface Unit (RIU-4) provides a scalable, cost-effective solution for adjusting the RF signal source from a number of host base-transceiver stations (BTS) or bi-directional amplifiers (BDA) and feeding the conditioned RF signals to Corning MobileAccess DAS coverage systems.

The RIU-4's scalable design is ideal for large deployments and can easily expand to support operator's long-term needs. Each RIU-4 unit can support up to four cellular services in a stand-alone mode, whereas additional different services/bands (up to six) can be supported when two units are connected in a master/slave configuration. Each unit supports up to four 4-port base units (or two 8-port base units), whereas additional base units (up to four 4-port or two 8-port base units) can be supported when utilizing the expansion Kit.

Remote control and monitoring is provided through a system controller (SC-450) connection, and enables adjusting the RF input power level from the BTS or BDA to the system and configuring the automatic gain control (AGC) function to ensure a constant level of RF input to the system. Controlling uplink RF signal is facilitated as well to provide UL noise level reduction when necessary.

Quad-Band Radio Interface Unit (RIU-4)
| Photo CMA171

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Radio Interface Unit (RIU-4)
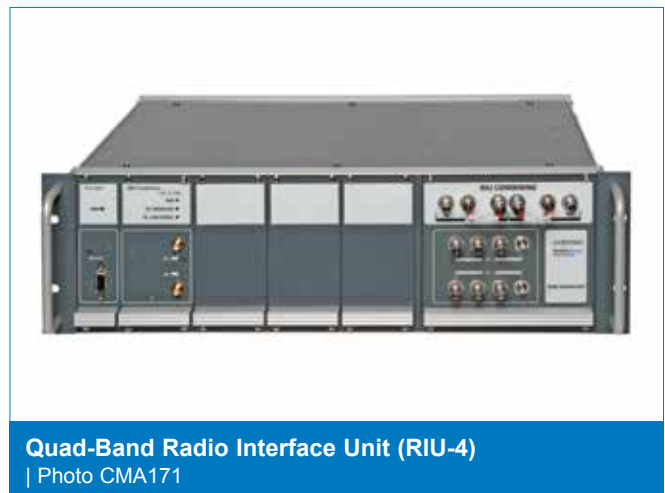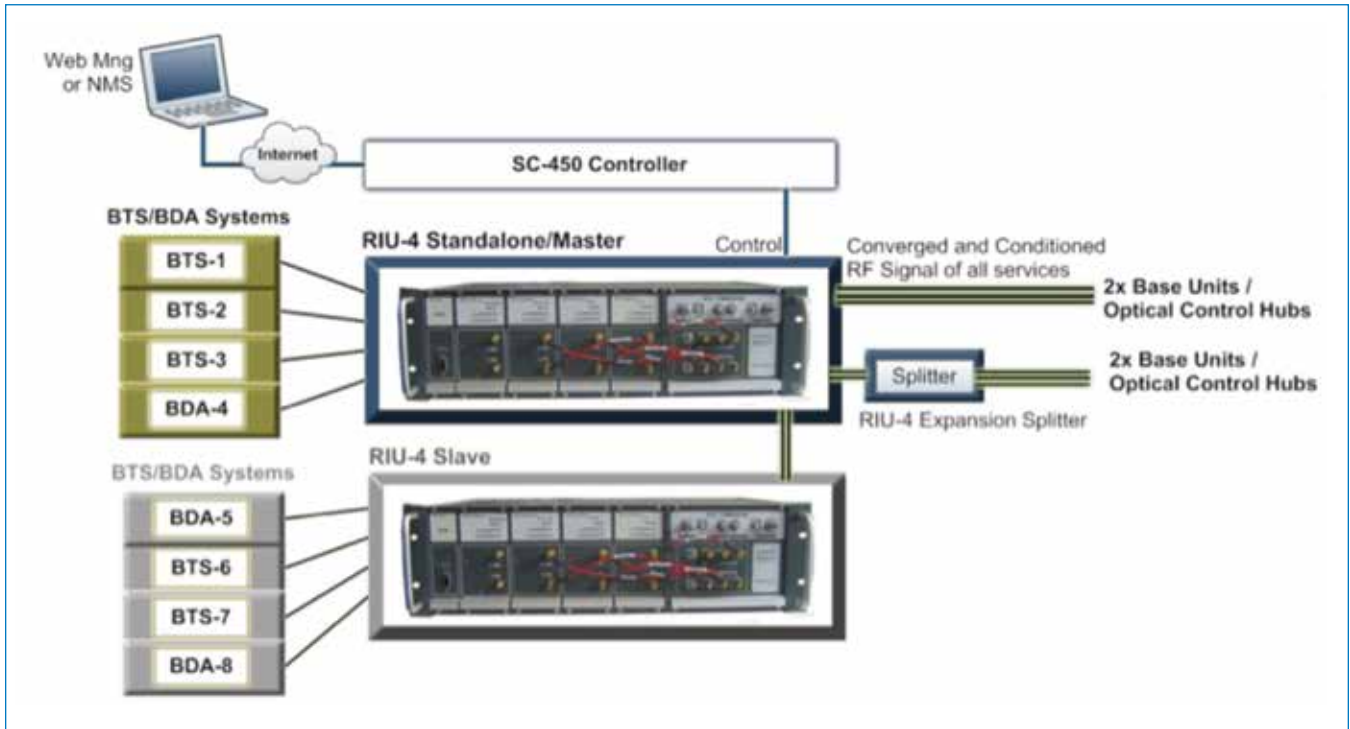
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Example of RIU-4 Master and Slave Installation Supporting more than Four Services Delivered to the Same Base Units

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Radio Interface Unit (RIU-4)

specifications |

RF In	From BTS (to BTSC):	10 to 36 dBm (0 to 40 dBm for 700 MHz LTE model)	
	From BDA (to BDAC):	-16 to 10 dBm	
Power	DC Input:	20 to 48 VDC	
	Power Consumption:	Per BTSC/BDAC unit: 6 W; Total: < 30 W	
LEDs	BTSC/BDAC Module:	Run	Operation status
		DL Overload	High DL output
		DL Low Signal	Low DL output
	System Level	Power	Power input indication
Physical Characteristics	Dimensions cm (in):	48.4 x 3U x 30 (19 x 3U x 11.8)	
	Weight (four modules):	10 kg (22.5 lbs)	
RF Connector Types	Front Panel:		
	Interfaces to (up to) four conditioners	(eight) QMA connectors	
	Interface to second RIU-4 unit (Master/Slave support)	(six) QMA connectors	
	Rear Panel:		
	Interface to BTS/BDA	(three) N-Type connectors on each conditioner	
	Interface to Base Units	(eight) QMA connectors for base units (BUs)	
		(two) QMA connectors for BU expansion kit	
Environmental Specifications	Temperature:		
	Operating	0º to +50º C (32 to 122º F)	
	Storage	-20º to +85º C (-4 to 185º F)	
	Humidity:	10 to 95 percent, non-condensing	
Standards and Approvals	USA:	FCC 47 CFR part 15B	
	NRTL:	UL 60950-1	
	Europe:	EN 301489	
	EU Safety:	EN 60950-1	

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Radio Interface Unit (RIU-4)

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ordering information |

RIU-4 Accessory Kits

AK-RIU4-COMBINE	RIU-4 Combining Cables Kit, including (two) QMA/QMA cables, 80 cm length
AK-RIU4-BU-CABLES	RIU-4 Cables Kit, including (four) QMA/N-Type 80 cm cables for BU connections
AK-RIU4-EXP-BU	RIU-4 Expansion Accessory Kit for up to (four) base units
AK-RIU-4-CNDTR-CABLES	Eight QMA to SMA cables (four pairs of different lengths optimized for RIU-4), RIU-4 included.

RIU-4 Chassis and Modules

Note: The conditioner cables now come with the RIU chassis part number and not with the conditioner part numbers. In service upgrade scenarios at existing sites, call 866-436-9266

RIU-4	Radio Interface Unit Chassis, can support up to four BTSC/BDAC conditioners
RIU-BTSC-LTE-700	700 MHz LTE Conditioner, 0 to +40 dBm input range
RIU-BTSC-PS700	Public Safety 700 MHz Conditioner, +10 to +36 dBm input range
RIU-BDAC-PS700	Public Safety 700 MHz Conditioner, -16 to +36 dBm input range
RIU-BTSC-CELL	Cellular Conditioner, +10 to +36 dBm input range
RIU-BDAC-CELL	Cellular Conditioner, -16 to +10 dBm input range
RIU-BTSC-IDEN	BTS iDEN/800 MHz SMR Conditioner, +10 to +36 dBm input range
RIU- BDAC-IDEN	BDA iDEN/800 MHz SMR Conditioner, -16 to +10 dBm input range
RIU-BTSC-SMR	900 MHz SMR/Paging Conditioner, +10 to +36 dBm input range
RIU-BDAC-SMR	900 MHz SMR/Paging Conditioner, -16 to +10 dBm input range
RIU-BTSC-PCS	BTS PCS Conditioner, +10 to +36 dBm input range
RIU-BTSC-G-PCS	BTS PCS Conditioner for PCS with G-Block support, +10 to +36 dBm input range
RIU- BDAC-PCS	BDA PCS Conditioner, -16 to +10 dBm input range
RIU-BDAC-G-PCS	BDA PCS Conditioner w/G-Block support, -16 to +10 dBm input range
RIU-BTSC-GSM	BTS GSM 900 MHz Conditioner, +10 to +36 dBm input range
RIU-BTSC-GSM-O	BTS GSM 900 MHz Conditioner for Orange, +10 to +36 dBm input range
RIU-BTSC-E-GSM	BTS EGSM 900 MHz Conditioner, +10 to +36 dBm input range
RIU-BDAC-E-GSM	BDA EGSM 900 MHz Conditioner, -16 to +10 dBm input range
RIU-BTSC-DCS	BTS DCS 1800 MHz Conditioner, +10 to +36 dBm input range
RIU-BTSC-UMTS	BTS UMTS 2100 MHz Conditioner, +10 to +36 dBm input range
RIU-BTSC-AWS	BTS AWS Conditioner, +10 to +36 dBm input range
RIU- BDAC-AWS	BDA AWS Conditioner, -16 to +10 dBm input range

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DS_QB RIU-4_CE0003701_A00_30JUN11

SPECIFICATION SHEET CMA-225-AEN | PAGE 4

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