

RIU-Lite and RIU-IM

A Corning
MobileAccess
Solutions Product

features and benefits |

Automatic conditioning of BTS/BDA signals

Remote setup, adjustments and monitoring through SC-450 Controller connections

Monitoring right up to the onsite operator's equipment

Programmable noise level reduction parameter

Configurable AGC

Allows monitoring of receive and transmit signals from the operator's BTS/BDA equipment

Simplex and duplex interface to BDA/BTS

Intuitive GUI

A range of products to meet various installations topologies

Simple installation and configuration procedure

The Corning MobileAccess line of intelligent Radio Interface Units (RIUs) provides a range of cost-effective solutions for optimizing the RF signal source from a host base-transceiver stations (BTS) or bi-directional amplifiers (BDA) and feeding the conditioned RF signals to Corning MobileAccess indoor coverage systems.

The RIU product family supports remote control and monitoring through SC-450 Controllers and configurable Automatic Gain Control (AGC) functions that ensure a constant level of RF input to the system.

RIU Products

Three types of RIU products are available:

- **RIU Lite** – A compact, cost-effective product with integrated technology support and BDA interfaces. The unit is ideal for small installations of up to eight RHUs. It supports either two or three services, as determined by the product model, and a single base unit.
- **RIU-IM** – A chassis-based product that can house a combination of up to three BTS Conditioner (BTSC) and BDA Conditioner (BDAC) modules supporting different technologies. This future safe, scalable device is used for large installations and can be upgraded to support additional services.
- **RIU-4** – The latest in Corning MobileAccess' RIU series, can house a combination of up to four BTSCs and BDACs in a 3U Chassis. The specifications of the RIU-4 are covered in a separate data sheet.



RIU-IM | Figure 1

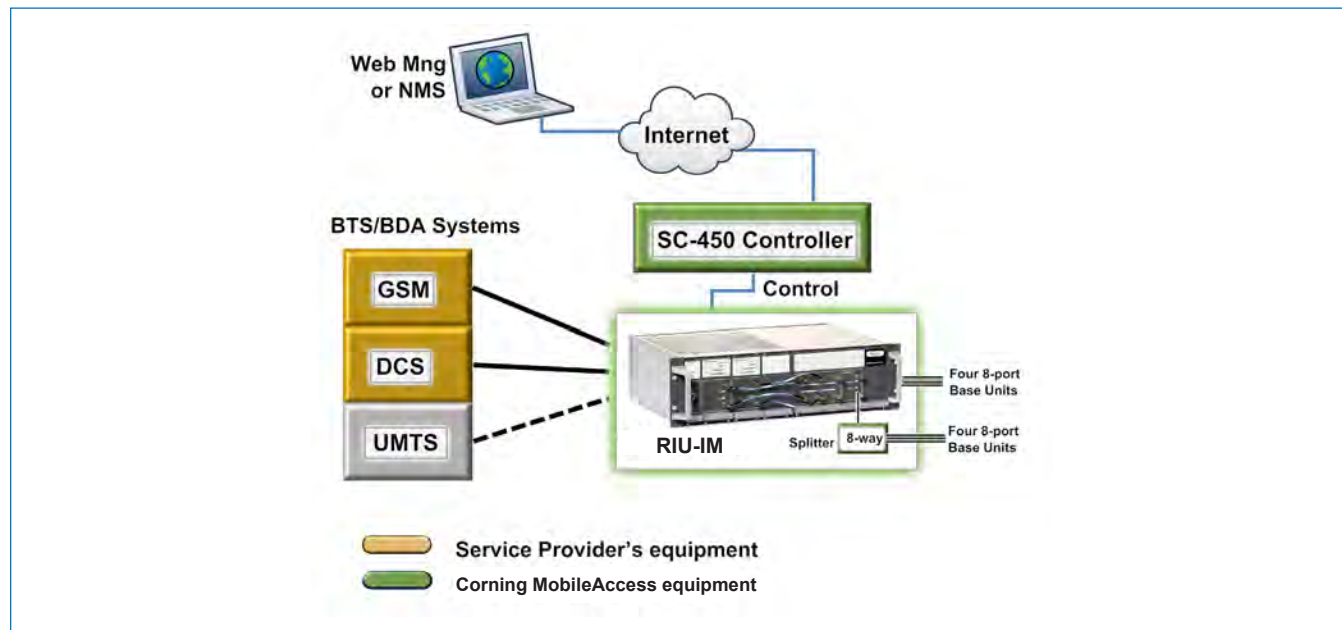


RIU-Lite | Figure 2

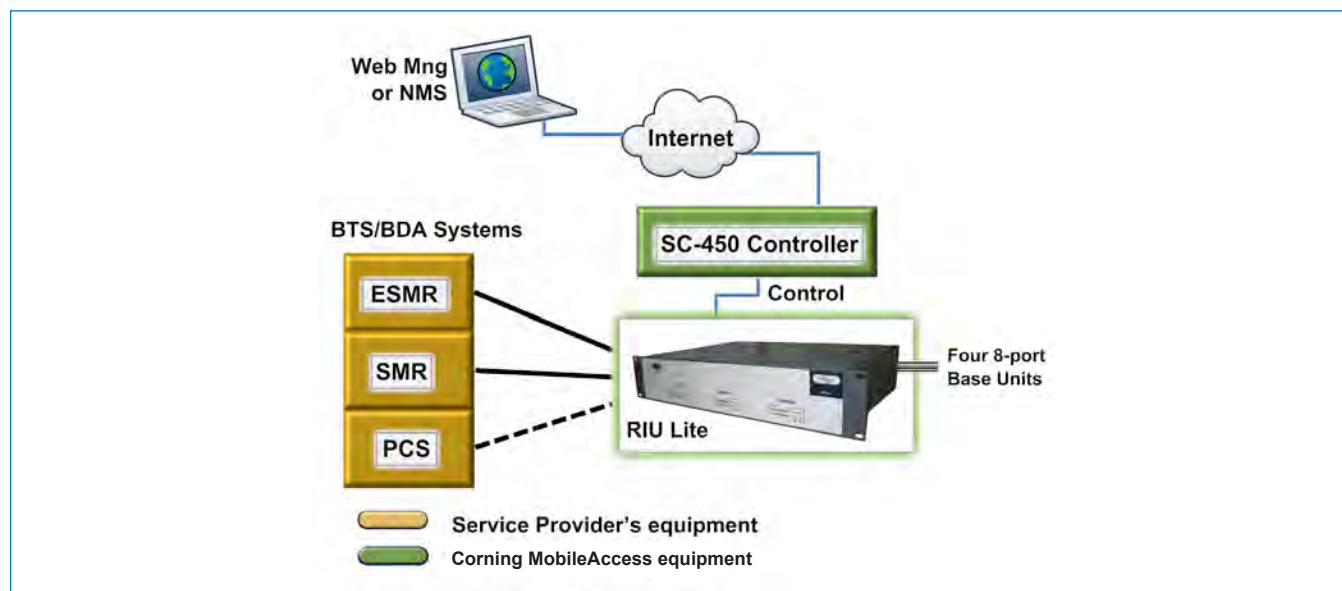
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Figures 1 and 2 illustrate the examples of RIU-IM and RIU-Lite respectively.



Example of RIU-IM providing interface to three BTS/BDA services. SC-450 Controller allows remote management. RIU supports up to four 8-port BUs, with support for additional BUs connectivity | Figure 3



Example of RIU-Lite providing interface to two BDA services | Figure 4

specifications |

RIU-IM

RF In from BTS to BTSC	10 to 36 dBm
RF In from BDA to BDAC	-16 to 10 dBm
Power	
DC Input	20 to 48* VDC
Power Consumption	4 W per BTSC/BDAC Unit
LEDs	
Per BTSC/BDAC Unit	<ul style="list-style-type: none"> • Run – Operation Status • DL Overload – High DL Output • DL Low Signal – Low DL Output
Per RIU Device	Power – Input power indication
Chassis	
Physical Characteristics	
Dimensions (H x W x D): cm (in)	13.3 x 48.3 x 30 (5.25 x 19 x 11.8)
Weight with (3) BTSCs/BDACs: kg (lb)	8.7 (19)
RIU Conditioners	
Interface to BTS/BDA	13 x 6.1 x 31.5 (5.1 x 2.4 x 12.4)
Interface to Base Units	13 x 6.1 x 31.5 (5.1 x 2.4 x 12.4)
RF Connector Types	
Interface to BTS/BDA	Duplex/simplex N-type female 50 ohm
Interface to Base Units	N-type female 50 ohm
Temperature	
Operating	0 to +50 °C (32 to 122 °F)
Storage	- 20 to +85 °C (-4 to 185 °F)

* Maximum absolute power input is up to 60 VDC

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specifications | (continued)

RIU-Lite

RF In from BDA to BDAC	-16 to 10 dBm
Power	
DC Input	20 to 48* VDC
Power Consumption	<ul style="list-style-type: none">• Two services model - 8 W;• Three services model - 12 W
LEDs	
Power	<ul style="list-style-type: none">• Run• DL Overload• DL Low Signal
Input Power Indication	<ul style="list-style-type: none">• Operation Status• High DL Output• Low DL Output
Physical Characteristics	
Dimensions (H x W x D): cm (in)	8.9 x 48.3 x 30 (3.5 x 19 x 11.8)
Weight (3 service mode): kg (lb)	4.16 (9.152)
RF Connector Types	
Interface to BDA	Duplex/simplex N-type female 50 ohm
Interface to Base Units	N-type female 50 ohm
Temperature	
Operating	0 to +50 °C (32 to 122 °F)
Storage	- 20 to +85 °C (-4 to 185 °F)

specifications | (continued)

Standards and Approvals

USA	FCC 47 CFR part 15B
NRTL	UL 60950-1
Europe	EN 301489
EU Safety	EN 60950-1
TRA	TRA type approval for UAE

ordering information |

Part Number	Description
RIU-IM	Radio Interface Unit, Support for 1-3 Conditioners
RIU-BTSC-700LTE	700 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	iDEN/SMR800 Conditioner, +10 to +36 dBm Input Range
RIU-BDAC-IDEN	iDEN/SMR800 Conditioner, -16 to +10 dBm Input Range
RIU-BTSC-G-PCS	PCS Conditioner w/G-Block Support, +10 to +36 dBm Input Range
RIU-BDAC-G-PCS	PCS Conditioner w/G-Block Support, -16 to +10 dBm Input Range
RIU-BTSC-SMR	SMR900/Paging Conditioner, +10 to +36 dBm Input Range
RIU-BDAC-SMR	SMR900/Paging Conditioner, -16 to +10 dBm Input Range

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ordering information | (continued)

Part Number	Description
RIU-BTSC-GSM	GSM 900 MHz Conditioner, +10 to +36 dBm Input Range
RIU-BDAC-GSM	GSM 900 MHz Conditioner, -16 to +10 dBm Input Range
RIU-BTSC-GSM-O	GSM 900 MHz Conditioner for Orange, +10 to +36 dBm Input Range
RIU-BDAC-GSM-O	GSM 900 MHz Conditioner for Orange, -16 to +10 dBm Input Range
RIU-BTSC-DCS	DCS 1800 MHz Conditioner, +10 to +36 dBm Input Range
RIU-BDAC-DCS	DCS 1800 MHz Conditioner, -16 to +10 dBm Input Range
RIU-BTSC-UMTS	UMTS 2100 MHz Conditioner, +10 to +36 dBm Input Range
RIU-L-IDEN-SMR-G-PCS1	RIU-Lite for iDEN 800,SMR 900,PCS1900 w/G-Block, Support 1BU8, -16 to +10 dBm Input Range
RIU-L-CELL-G-PCS1	RIU-Lite for CELL/PCS with G-Block, supporting 1BU8
RIU-BTSC-AWS	AWS Conditioner, +10 to +36 dBm Input Range
RIU-BDAC-AWS	AWS Conditioner, -16 to +10 dBm Input Range

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