

# 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.



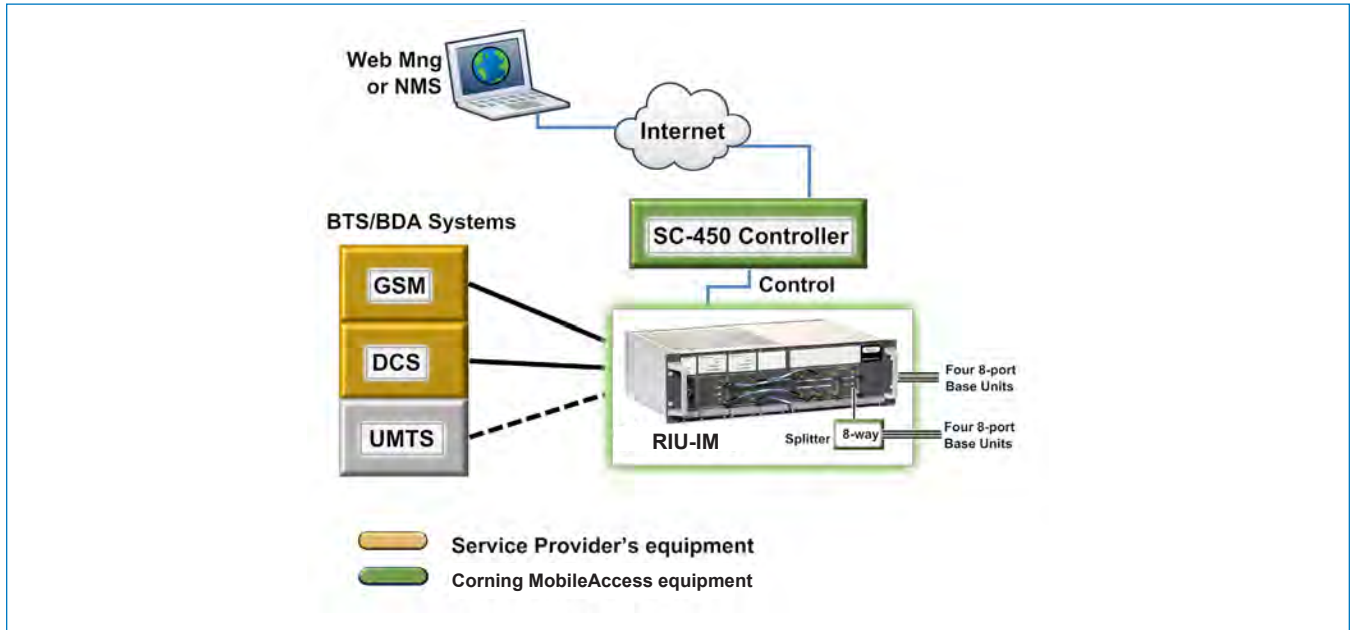
RIU-IM | Figure 1



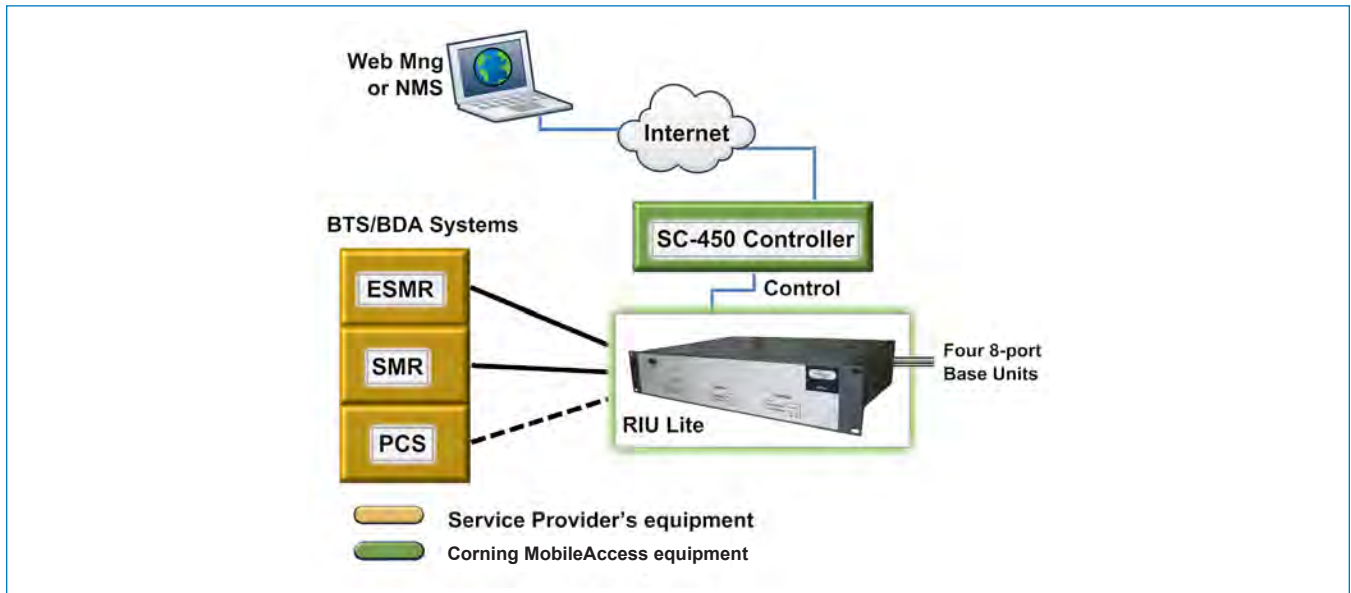
RIU-Lite | Figure 2

# RIU-Lite and RIU-IM

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

# RIU-Lite and RIU-IM

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## specifications |

### RIU-IM

<b>RF In from BTS to BTSC</b>	10 to 36 dBm
<b>RF In from BDA to BDAC</b>	-16 to 10 dBm
<b>Power</b>	
DC Input	20 to 48* VDC
Power Consumption	4 W per BTSC/BDAC Unit
<b>LEDs</b>	
Per BTSC/BDAC Unit	<ul style="list-style-type: none"><li>• Run – Operation Status</li><li>• DL Overload – High DL Output</li><li>• DL Low Signal – Low DL Output</li></ul>
Per RIU Device	Power – Input power indication
<b>Chassis</b>	
<b>Physical Characteristics</b>	
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)
<b>RIU Conditioners</b>	
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)
<b>RF Connector Types</b>	
Interface to BTS/BDA	Duplex/simplex N-type female 50 ohm
Interface to Base Units	N-type female 50 ohm
<b>Temperature</b>	
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

# RIU-Lite and RIU-IM

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## specifications | (continued)

### RIU-Lite

<b>RF In from BDA to BDAC</b>	-16 to 10 dBm
<b>Power</b>	
DC Input	20 to 48* VDC
Power Consumption	<ul style="list-style-type: none"><li>• Two services model - 8 W;</li><li>• Three services model - 12 W</li></ul>
<b>LEDs</b>	
Power	<ul style="list-style-type: none"><li>• Run</li><li>• DL Overload</li><li>• DL Low Signal</li></ul>
Input Power Indication	<ul style="list-style-type: none"><li>• Operation Status</li><li>• High DL Output</li><li>• Low DL Output</li></ul>
<b>Physical Characteristics</b>	
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)
<b>RF Connector Types</b>	
Interface to BDA	Duplex/simplex N-type female 50 ohm
Interface to Base Units	N-type female 50 ohm
<b>Temperature</b>	
Operating	0 to +50 °C (32 to 122 °F)
Storage	- 20 to +85 °C (-4 to 185 °F)

## specifications | (continued)

### Standards and Approvals

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

## ordering information |

Part Number	Description
<b>RIU-IM</b>	Radio Interface Unit, Support for 1-3 Conditioners
<b>RIU-BTSC-700LTE</b>	700 LTE Conditioner, 0 to +40 dBm Input Range
<b>RIU-BTSC-PS700</b>	Public Safety 700 MHz Conditioner, +10 to +36 dBm Input Range
<b>RIU-BDAC-PS700</b>	Public Safety 700 MHz Conditioner, -16 to +36 dBm Input Range
<b>RIU-BTSC-CELL</b>	Cellular Conditioner, +10 to +36 dBm Input Range
<b>RIU-BDAC-CELL</b>	Cellular Conditioner, -16 to +10 dBm Input Range
<b>RIU-BTSC-IDEN</b>	iDEN/SMR800 Conditioner, +10 to +36 dBm Input Range
<b>RIU-BDAC-IDEN</b>	iDEN/SMR800 Conditioner, -16 to +10 dBm Input Range
<b>RIU-BTSC-G-PCS</b>	PCS Conditioner w/G-Block Support, +10 to +36 dBm Input Range
<b>RIU-BDAC-G-PCS</b>	PCS Conditioner w/G-Block Support, -16 to +10 dBm Input Range
<b>RIU-BTSC-SMR</b>	SMR900/Paging Conditioner, +10 to +36 dBm Input Range
<b>RIU-BDAC-SMR</b>	SMR900/Paging Conditioner, -16 to +10 dBm Input Range

# RIU-Lite and RIU-IM

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## ordering information | (continued)

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

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