ZTE

RSU82 RF System Unit

Version: V1.0

Revision History

Revision No.	Revision Date	Revision Reason
R1.1	2017-03-01	V4.16.10.10 Those topics have been modified: RSU60E RF System Unit
R1.0	2015-02-28	First edition

Contents

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Chapter 1
RSU82 RF System Unit

Functions

The RSU82 is a multi mode radio frequency module with 2T2R/2T4R, which supports GSM, UMTS, LTE or mixed mode through software configuration. The RSU82 covers two sectors in GSM/UMTS mode or one sector with 2 × 2 MIMO in HSPA+/LTE mode. The RSU82 works on DD/810 MHz/850 MHz/900 MHz/1800 MHz/1900 MHz/2100 MHz/2600 MHz. The TOC output power differs in the different frequency band.

The RSU82 module consists of the MCPA module, transceiver module, and duplex filter LNA. There are two TX/RX ports and two RX ports for connecting to antennas. In addition, the NSBT is optional at 2100 MHz.

External View

There are two types of RSU82 modules, which differ in the panel width to satisfy different cabinet configurations. For one type of the RSU82, the panel has a width of 88 mm; for the other type of the RSU82, the panel has a width of 72 mm. Figure 1-1 and Figure 1-2 show the external views of the two RSU82 types.

Figure 1-1 RSU82 (88 mm Panel)
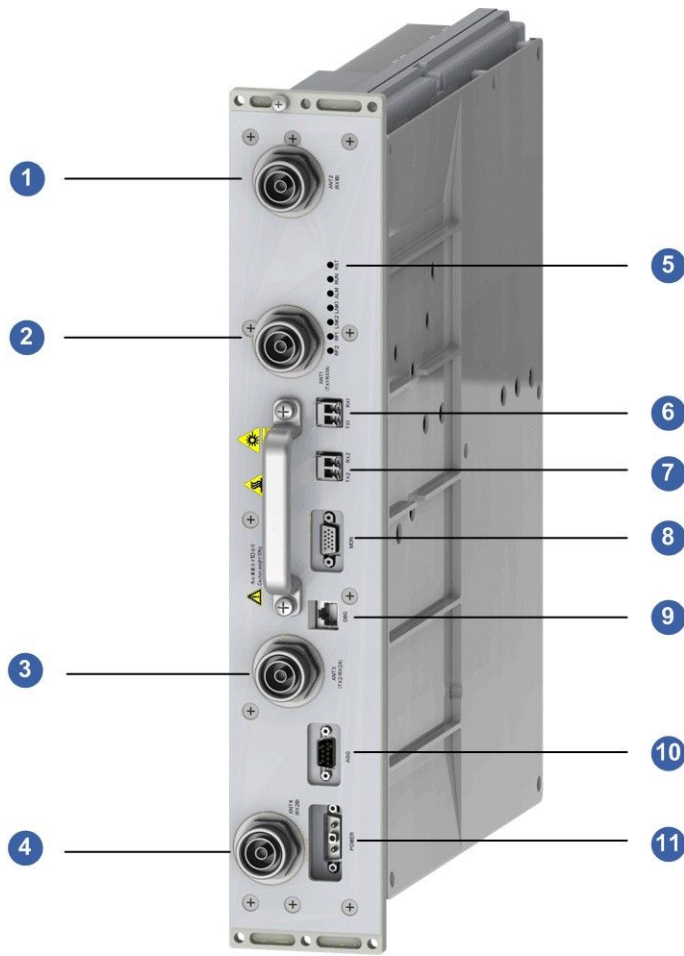
Figure 1-2 RSU82 (72 mm Panel)
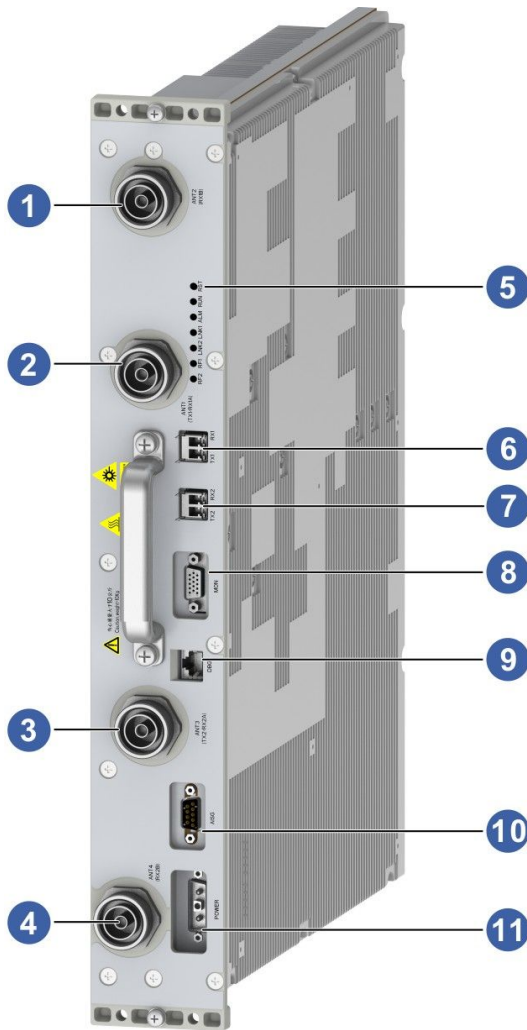
Interfaces

For a description of the interfaces on the RSU82 panel, refer to Table 1-1.

Table 1-1 RSU82 Interfaces

No.	Interface Silkscreen	Description	Interface Connector
1	ANT2 (RX)	Receive diversity RF cable interface	50 Ω DIN-type connector
2	ANT1 (TX/RX)	Transmit/Receive main diversity RF cable interface	50 Ω DIN-type connector
3	ANT3 (TX/RX)	Transmit/Receive main diversity RF cable interface	50 Ω DIN-type connector
4	ANT4 (RX)	Receive diversity RF cable interface	50 Ω DIN-type connector
5	RST	Hard reset button	-

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No.	Interface Silkscreen	Description	Interface Connector
6	TX1 RX1	Connected to the CPRI optical interface of the BBU or a cascaded upper-level RSU82	LC-type optical interface (IEC 874)
7	TX2 RX2	Connected to the CPRI optical interface of a cascaded lower-level RSU82	LC-type optical interface (IEC 874)
8	MON	Provides four dry contact input interfaces and the RS485 environment monitoring interface. It is connected to an external device.	DB15 interface
9	DBG	Debugging network interface and testing interface	RJ45 interface
10	AISG	Connected to the antenna feeder AISG interface	B9 interface
11	POWER	–48 V DC input interface	-

1. At some low frequency bands, only 2T2R is supported, and there are no ANT2 and ANT4 interfaces.

Technical Specifications

For a description of the RSU82 specifications, refer to Table 1-2.

Table 1-2 RSU82 Specifications

Index	Specification
Dimensions (Height × Width × Depth)	482.6 mm × 88 mm × 360 mm
Weight (kg)	≤ 15
Hot swapping	Supported

Glossary

AISG
  - Antenna Interface Standards Group

BBU
  - Base Band Unit

GSM
  - Global System for Mobile Communications

HSPA
  - High Speed Packet Access

LNA
  - Low Noise Amplifier

LTE
  - Long Term Evolution

MIMO
  - Multiple-Input Multiple-Output

MON
  - Monitor

UMTS
  - Universal Mobile Telecommunication System