User Manual

Antenna Model RTM-1501

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Note

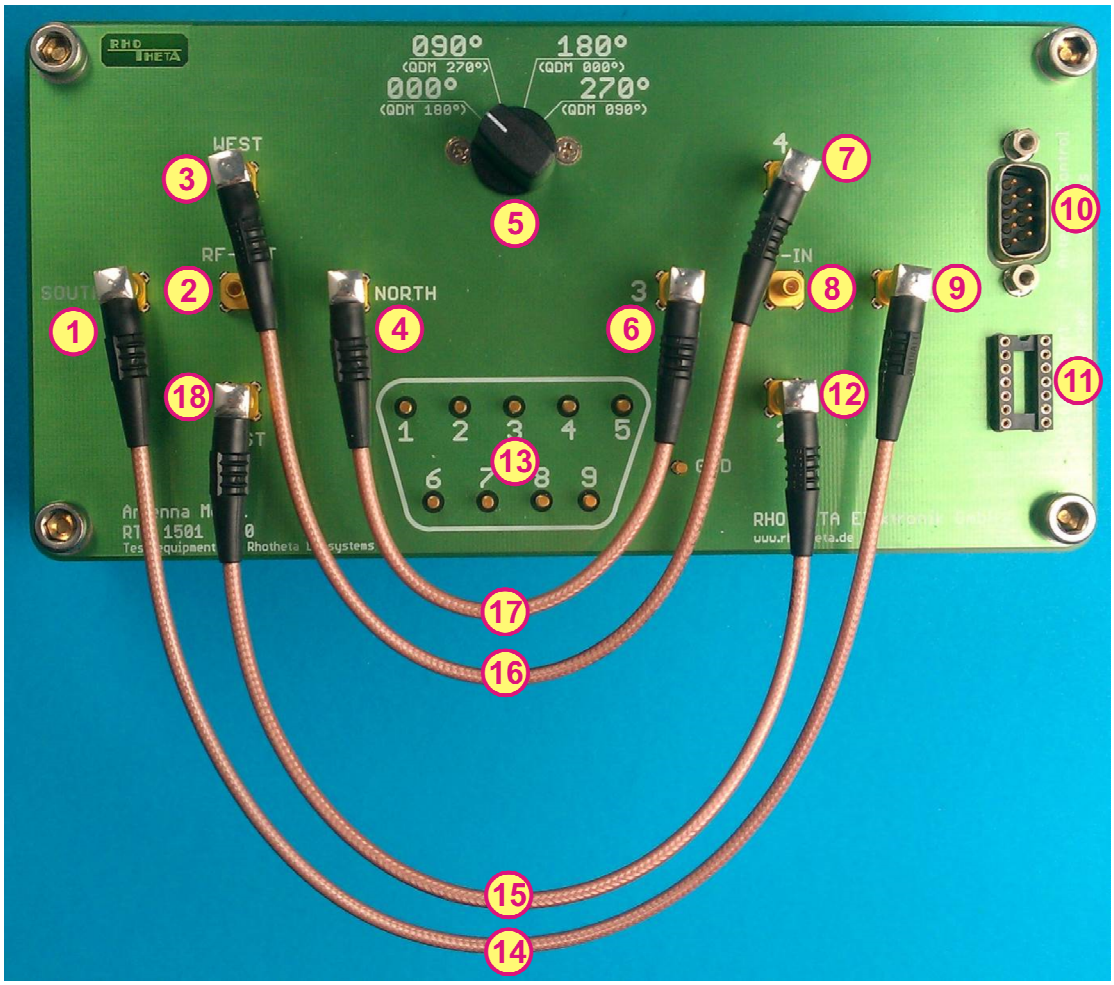
The manufacturer reserves the right to make modifications at any time and without previous information of the here described product.

Content

1 Description

The antenna model RTM-1501 is used to simulate the Direction Finder - Antenna. If the Antenna Model is provided with an RF-Signal from a signal generator, it supplies on its RF-output a signal like a DF-Antenna under perfect conditions would do if the signal angle is 0°; 90°; 180° or 270°. The antenna model is necessary for maintaining the DF-System.

2 Front View



3 Control Elements and Interfaces

Antenna Model		
Pos.	**Description**	**Inscription**
1	RF-Connector South	SOUTH
2	RF-Connector antenna signal output	RF-OUT
3	RF-Connector West	WEST
4	RF-Connector North	NORTH
5	Antenna signal switch	QDR: 000°; 090°; 180°; 270° QDM: 180°; 270°; 000°; 090°
6	RF-Connector No.3	3
7	RF-Connector No.4	4
8	RF-Connector receiving signal input	RF-IN
9	RF-Connector No.1	1
10	D-Sub-Connector for antenna control signal	Antenna Control Signals
11	Service Port	Receiver Port only for RT-200 and RT-300
12	RF-Connector No.2	2
13	Test-PIN's for antenna control signals	1: EAST 2: WEST 3: GND 4: GND 5: + 15 V 6: SOUTH 7: NORTH 8: R/L 9: + 15 V
14	Signal cable SOUTH	SOUTH ↔ 1
15	Signal cable EAST	EAST ↔ 2
16	Signal cable WEST	WEST ↔ 4
17	Signal cable NORTH	NORTH ↔ 3
18	RF-Connector East	EAST

4 Connection of the Antenna Model

1. Connection of the signal cables (s. Front View):

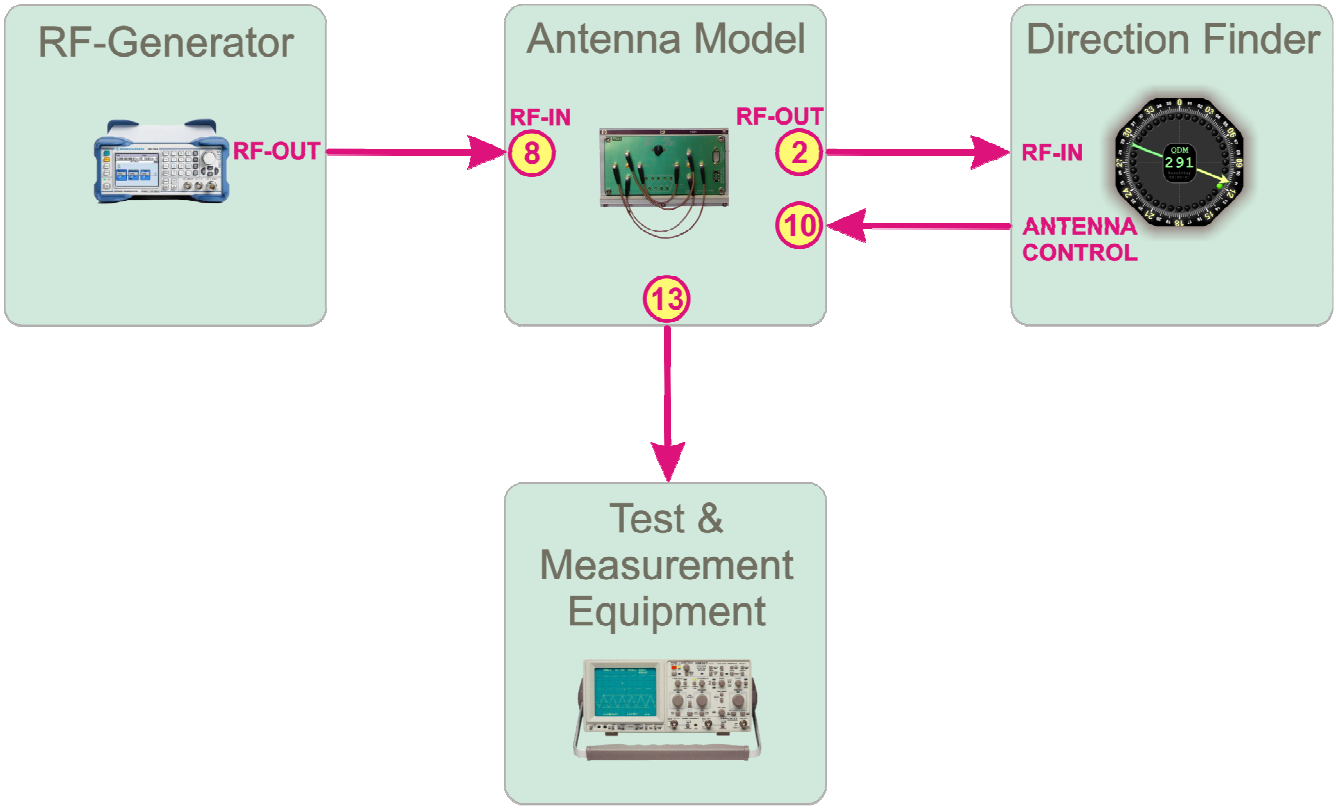
- Connect signal cable SOUTH (14) with connector 1 (9) and connector SOUTH (1).
- Connect signal cable EAST (15) with connector 2 (12) and connector EAST (18).
- Connect signal cable NORTH (17) with connector 3 (6) and connector NORTH (4).
- Connect signal cable WEST (16) with connector 4 (7) and connector WEST (3).

2. Connection of the RF-Generator
   Connect the RF-generator output (RF-OUT) to the connector RF-input (8) of the antenna model.

3. RF-connection antenna model <--> receiver unit of the Direction Finder
   Connect RF-output (2) of the antenna model via the RF cable with the RF-input connector of the Direction Finder

4. Connection of the antenna control cable
   Connect the antenna signal connector (10) with the connector “Antenna Control” on the Direction Finder.

5. For monitoring of the antenna control signals, it is also possible to connect the Test & Measurement Equipment (e.g. oscilloscope) to the test pins (13).



5 Technical Data

Technical Data		
Pos.	**Parameter**	**Value**
1	Transmission loss @ 100 MHz … 200 MHz	30 dB … 35 dB
2	Bearing accuracy	± 2°
3	Switch position	180°, 270°, 0°, 90° (QDM)

6 Notes