R&S® GX465
Digital Wideband Storage Device
Recording and replaying of I/Q data with up to 80 MHz bandwidth
The R&S®GX465 is the ideal solution when there is insufficient time or resources for a live scenario. Recorded signals can either be replayed or exported as a file for offline analysis, e.g., with the R&S®GX410 AMLAB signal analysis software or the R&S®CA100 PC-based signal analysis and signal processing software. Recordings can be controlled, and existing recordings can be selected and replayed via R&S®RAMON.

The R&S®GX465 is equipped with solid-state drives (SSD). The storage medium is easily removed for transportation or for security reasons.

**Key facts**
- Sustained data transfer rate for recording baseband I/Q data with a maximum bandwidth of 80 MHz
- Recording of various data formats (I/Q, symbol, image, audio, FFT, etc.)
- 7.6 Tbyte of removable storage
- Various recording and replaying modes such as continuous recording
- One-page spectrogram summary of recording
- Multiple recordings of various data types in parallel (see table on page 4)
R&S® GX465
Digital Wideband Storage Device
Benefits and key features

Network interface
With a 1 Gbit Ethernet interface, the R&S®GX465 can be used for recording and replaying scenarios with a bandwidth of up to 10 MHz and for controlling the device. Additionally, the R&S®GX465 can be used with 10 Gbit Ethernet (either electrical or optical), data transfer for the R&S®ESMD wideband monitoring receiver or the R&S®DDF255 digital direction finder. The maximum data transfer is sufficient to handle scenarios with up to 80 MHz bandwidth (see table on page 4).

Control interface
The R&S®GX465 is controlled via the 1 Gbit Ethernet interface. Control interface commands supported by the R&S®GX465 include:
- Storage status query (free/used storage space)
- Query list of recordings
- Tagging of recordings with comments
- History function for facilitating the setting of comments for recordings in relation to timestamps
- Export and import of recordings using file transfer protocol (FTP)¹)
- Deleting of specific recordings
- Attachment of a write-protect tag to specific recordings
- Navigation in large recordings
- Built-in test (BIT) during power-up procedure and consistency check

Easy-to-exchange storage medium
The R&S®GX465 uses memory packs that can be easily exchanged to facilitate data interchange between stations (e.g. between mobile and fixed stations).

¹) Supported by FTP commands.

Compact data recorder with removable storage medium
Compact, 2 HU, 19” format
The R&S®GX465 is a compact digital data recording and replaying device. Its format (2 HU, 19”) facilitates rackmounting together with Rohde & Schwarz compact receivers, such as the R&S®ESMD wideband monitoring receiver. The storage medium is simple to insert and remove, making it easy to exchange data between mobile and fixed stations.

Recording and replaying
Depending on the configuration and the type of receiver or direction finder used, the R&S®GX465 is able to record scenarios that can be replayed later. A scenario can be replayed repeatedly (loop mode).

IF recording/replaying control with R&S®ESMD.

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## System configuration

### Overview

<table>
<thead>
<tr>
<th>Supported devices</th>
<th>Maximum recording bandwidth</th>
<th>I/Q recording and/or replaying</th>
<th>Additional receiver/direction finder options</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;S®EB500</td>
<td>5 MHz</td>
<td>recording</td>
<td></td>
</tr>
<tr>
<td>R&amp;S®EB510</td>
<td>5 MHz</td>
<td>recording</td>
<td></td>
</tr>
<tr>
<td>R&amp;S®ESMD</td>
<td>10 MHz</td>
<td>recording, replaying</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 MHz</td>
<td>recording, replaying</td>
<td>R&amp;S®RX-10G, R&amp;S®ESMD-ADC2</td>
</tr>
<tr>
<td></td>
<td>80 MHz</td>
<td>recording, replaying</td>
<td>R&amp;S®RX-10G, R&amp;S®ESMD-ADC2, R&amp;S®ESMD-WB</td>
</tr>
<tr>
<td>R&amp;S®EM100</td>
<td>500 kHz</td>
<td>recording</td>
<td></td>
</tr>
<tr>
<td>R&amp;S®PR100</td>
<td>500 kHz</td>
<td>recording</td>
<td></td>
</tr>
<tr>
<td>R&amp;S®EM510</td>
<td>1 MHz</td>
<td>recording</td>
<td></td>
</tr>
<tr>
<td>R&amp;S®EM550</td>
<td>1 MHz</td>
<td>recording</td>
<td></td>
</tr>
<tr>
<td>R&amp;S®DDF255</td>
<td>10 MHz</td>
<td>recording, replaying</td>
<td></td>
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<tr>
<td></td>
<td>20 MHz</td>
<td>recording, replaying</td>
<td>R&amp;S®DDF-10G, R&amp;S®DDF255-ADC2</td>
</tr>
<tr>
<td></td>
<td>80 MHz</td>
<td>recording, replaying</td>
<td>R&amp;S®DDF-10G, R&amp;S®DDF255-WB, R&amp;S®DDF255-ADC2</td>
</tr>
<tr>
<td>R&amp;S®DDF007</td>
<td>500 kHz</td>
<td>recording</td>
<td></td>
</tr>
<tr>
<td>R&amp;S®DDF205</td>
<td>5 MHz</td>
<td>recording</td>
<td></td>
</tr>
<tr>
<td>R&amp;S®DDF550</td>
<td>10 MHz</td>
<td>recording</td>
<td></td>
</tr>
<tr>
<td>R&amp;S®CA120</td>
<td>1 MHz</td>
<td>recording, replaying</td>
<td></td>
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<tr>
<td>R&amp;S®GX400</td>
<td>250 kHz</td>
<td>recording, replaying</td>
<td></td>
</tr>
</tbody>
</table>

Note: The R&S®GX465 records and replays various data formats such as I/Q, symbol, image, audio and FFT.
System examples

Up to 10 MHz recording with the R&S®ESMD wideband monitoring receiver and the R&S®RAMON COMINT/CESM software
- Recording of scenarios with up to 10 MHz bandwidth
- 7.6 Tbyte storage capacity
- 1 Gbit interface

Up to 80 MHz recording with the R&S®ESMD wideband monitoring receiver
- Recording of scenarios with up to 80 MHz bandwidth
- 7.6 Tbyte storage capacity
- Parallel recording of four DDC I/Q data streams up to 1 MHz bandwidth
- Required R&S®ESMD options
  - R&S®RX-10G
  - R&S®ESMD-WB
  - R&S®ESMD-ADC2
  - R&S®ESMD-DDC
Specifications in brief

Simultaneous recording and replaying
R&S® GX465 can simultaneously record and replay:
- Up to 128 signals with 30 kHz bandwidth via 1 Gbit LAN or
- Up to 32 signals with 300/500 kHz bandwidth via 1 Gbit LAN or
- Up to 20 signals with 1 MHz bandwidth via 1 Gbit LAN or
- Up to 8 signals with 1 MHz bandwidth via 1 Gbit LAN or
- Up to 4 signals with 5 MHz bandwidth via 1 Gbit LAN or
- Up to 3 signals with 5 MHz bandwidth via 1 Gbit LAN or
- 2 signals with 10 MHz bandwidth via 1 Gbit LAN or
- 2 signals with max. 20 MHz bandwidth via 10 Gbit LAN or
- 2 signals with max. 40 MHz bandwidth via 10 Gbit LAN or
- 1 signal with max. 80 MHz bandwidth via 10 Gbit LAN or
- 1 signal with max. 125 MHz bandwidth via 10 Gbit LAN

For data sheet, see 3606.7647.22 and www.rohde-schwarz.com
## Ordering information

<table>
<thead>
<tr>
<th>Designation</th>
<th>Type</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base unit (delivered with accessories such as power cable, manual)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Wideband Storage Device, for recording and replaying scenarios up to 80 MHz bandwidth with 7.6 Tbyte solid state drive (SSD); R&amp;S®RAMON basic AMREC manager software included</td>
<td>R&amp;S®GX465</td>
<td>4100.4002.04</td>
</tr>
<tr>
<td><strong>Auxiliary equipment</strong></td>
<td></td>
<td></td>
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<tr>
<td>Copper Cable, for 10 Gbit and two transceivers, length: 5 m</td>
<td>R&amp;S®GX460-CCG</td>
<td>4094.8635.02</td>
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<tr>
<td>Optical Cable, for 10 Gbit and two optical transceivers, length: 20 m</td>
<td>R&amp;S®GX460-OCG</td>
<td>4094.8641.02</td>
</tr>
</tbody>
</table>

Your local Rohde & Schwarz expert will help you determine the optimum solution for your requirements.
To find your nearest Rohde & Schwarz representative, visit
www.sales.rohde-schwarz.com
About Rohde & Schwarz

The Rohde & Schwarz electronics group offers innovative solutions in the following business fields: test and measurement, broadcast and media, secure communications, cybersecurity, radiomonitoring and radiolocation. Founded more than 80 years ago, this independent company has an extensive sales and service network and is present in more than 70 countries. The electronics group is among the world market leaders in its established business fields. The company is headquartered in Munich, Germany. It also has regional headquarters in Singapore and Columbia, Maryland, USA, to manage its operations in these regions.

Sustainable product design

- Environmental compatibility and eco-footprint
- Energy efficiency and low emissions
- Longevity and optimized total cost of ownership

Certified Quality Management
ISO 9001

Certified Environmental Management
ISO 14001

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