R&S® GX470
Digital Wideband Storage Device
Recording and replaying of I/Q data with up to 500 MHz bandwidth
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At a glance

The R&S® GX470 is a recording/replaying device in COMINT and ELINT systems that is ideal for use in signal interception systems and in combination with the R&S® WPU500 wideband processing unit, the R&S® CA120 multichannel signal analyzer and selected Rohde & Schwarz receivers and direction finders. It provides a storage capacity of 7.68 Tbyte for real-time recording of a single signal with up to 500 MHz bandwidth or multiple channels recording up to 128 signals with 30 kHz bandwidth.

The R&S® GX470 is equipped with solid-state drives (SSD). The storage medium is easily removed for transportation and for security reasons.

Key features

Recording and replaying

Depending on the configuration and the type of receiver or direction finder used, the R&S® GX470 is able to record scenarios of various bandwidths that can be replayed later. A scenario can be replayed repeatedly (loop mode). Wideband scenarios with a bandwidth up to 500 MHz are replayed to an R&S® SMW200A vector signal generator that converts the signals back to analog RF for replay in the R&S® WPU500 or for sensor stimulation and verification.

Network and control interface

The 40 Gbit interface is used to record and replay baseband I/Q data up to 500 MHz bandwidth.

The 10 Gbit interface is used to transfer data to the R&S® TPA technical pulse analysis software (ELINT analysis) and to back up recorded data on a network attached storage (NAS) device.

The 1 Gbit interface is used to control the device and to transfer spectrum and spectrogram data. Additionally, it can be used to record and replay baseband I/Q data up to 10 MHz bandwidth.

Control interface commands include:
- Storage status query (free/used storage space)
- Query list of recordings
- Tagging of recordings with comments
- History function that facilitates the setting of comments for recordings in relation to timestamps
- Export and import of recordings using file transfer protocol (FTP)
- Deleting of specific recordings
- Attachment of a write-protect tag to specific recordings
- Navigation in large recordings via spectrogram
- Built-in test (BIT) during power-up procedure and consistency check

Ordering information

<table>
<thead>
<tr>
<th>Designation</th>
<th>Type</th>
<th>Order No.</th>
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<tbody>
<tr>
<td>Digital Wideband Storage Device, for recording and replaying scenarios up to 500 MHz bandwidth with 7.68 Tbyte (8 x 960 Gbyte) solid-state drive (SSD); R&amp;S® RAMON basic R&amp;S® AMREC manager software included</td>
<td>R&amp;S® GX470</td>
<td>4107.0102.02</td>
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<tr>
<td>Copper Cable, for 40 Gbit, incl. two transceivers, length: 2 m, for connecting R&amp;S® GX470 and R&amp;S® WPU500</td>
<td>R&amp;S® GX470-CCG</td>
<td>4107.0302.02</td>
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<tr>
<td>Cable for R&amp;S® Digital I/Q Interface, optical cable, QSFP+ plug, length: 3 m; mandatory for replaying I/Q data from R&amp;S® GX470 into the R&amp;S® SMW200A</td>
<td>R&amp;S® DIGIQ-HS</td>
<td>3641.2948.03</td>
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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](http://www.sales.rohde-schwarz.com)
Compact device, 2 HU, 19” format
The R&S®GX470 is a compact digital data recording and replaying device. Its format (2 HU, 19”) facilitates rack-mounting with compact Rohde & Schwarz receivers such as the R&S®WPU500 wideband monitoring receiver. The storage medium is simple to insert and remove from the front side of the device, making it easy to exchange data between mobile and fixed stations.

System examples
Up to 500 MHz recording with the R&S®WPU500 wideband ELINT processing unit and replaying via the R&S®SMW200A.

Up to 500 MHz recording

For control all devices are connected via the 1 Gbit LAN interface.

Up to 500 MHz replaying from R&S®GX470 to R&S®WPU500 via R&S®SMW200A

For control, all devices are connected via the 1 Gbit LAN interface.
Rohde & Schwarz
The Rohde & Schwarz electronics group offers innovative solutions in the following business fields: test and measurement, broadcast and media, secure communications, cybersecurity, monitoring and network testing. Founded more than 80 years ago, the independent company which is headquartered in Munich, Germany, has an extensive sales and service network with locations in more than 70 countries.

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

Certified Environmental Management
ISO 14001
Certified Quality Management
ISO 9001

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