HF Transceiver Family

R&S® XK 2000

MIL-STD-188-141A + B
Conformance Certification by
Defense Information Systems Agency (JITC)

Data Link Processor R&S®GS 2200

Multistandard automatic link setup for reliable radiocommunications links

Two different procedures are available for the ALE (automatic link establishment) radio processor:

◆ ALIS (Rohde & Schwarz proprietary standard)
◆ ALE (in line with MIL-STD-188-141 B)

One of these ALE standards can be loaded into the Processor R&S®GS 2200.

Using the Rohde & Schwarz automatic radio link setup and continuous link quality monitoring procedure of ALIS (automatic link setup) along with the R&S®XK 2000 transceiver family makes it possible to achieve unequaled operating features.

◆ Simple operation by entering a 4-digit address
◆ Realtime channel analysis
◆ Best-channel calculation and setting
◆ Automatic link setup
◆ Ongoing channel monitoring
◆ Adaptive response in case of interference
◆ 100 % error-free transmission

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With the ALIS software selected, the Data Link Processor R&S®GS 2200 can perform the following functions:

◆ Automatic continuous passive channel analysis of all user-programmed pool frequencies during scanning mode
◆ Automatic channel selection by means of computation of the optimum working frequency from a pool of frequencies
◆ Automatic reliable and fast link setup through narrowband FSK (BW = 300 Hz, shift = ±85 Hz) at the optimum frequency from the pool
◆ Selective calling address (up to 9999)
◆ Automatic transmission of status
  – Type of modulation
  – Speed of data transmission
  – Type of data protection (FEC, ARQ, PRP)

◆ Automatic error correction (ARQ or PRP) and adaptive response during message transmission, either at a data rate of 228 bit/s (normal FSK modulation, basic feature) or 5400 bit/s (with additional HF data modem)
◆ Data transmission format
  – 5 bit Baudot (telex)
  – 7 bit ASCII (text files from PCs)
  – 8 bit ASCII (text and binary files, etc)
◆ Message length: unlimited
◆ SSB voice operating capability after automatic link setup procedure (no adaptive response during voice operation)

Depending on the requirements:

◆ Preferred or existing method
◆ Link setup with or without adaptive response

◆ Response to interference on the radio link (ARQ)
◆ Considerations of frequency economy, spectrum pollution and probability of intercept
◆ Operator convenience, error correction and expandability
◆ Interoperability with other systems and systems from other manufacturers

Rohde & Schwarz offers ALE methods that meet the following standards:

◆ Rohde & Schwarz standard ALIS
◆ MIL-STD-188-141B, App. A (FED-STD-1045/1046)
◆ MIL-STD-188-141B, App. A + B (FED-STD-1045/1046/1049)

More information at
www.rohde-schwarz.com
(search term: GS2200)

Ordering information

For the selection of the data link processor option, the R&S®GS 2200 and user-specific software (basic software) have to be ordered specially as follows:

Designation	Type	Order number
Data Link Processor (hardware, module not operational without loaded software)	R&S®GS 2200	6091.5009.02
ALE Software in line with FED-STD-1045/1046 (MIL-STD-188-141B, App. A), consisting of standard software in line with FED-STD, APP and fast data PRP capability	R&S®GS 2200S	6091.5709.02
ALE Software in line with FED-STD-1045/1046/1049 (MIL-STD-188-141B, App. A + B), consisting of standard software in line with FED-STD, APP and fast data PRP capability	R&S®GS 2201S	6091.5809.02
ALE Software in line with ALIS (adaptive) consisting of: ALIS HF850 compatibility, ARQ (228.5 Bd)	R&S®GS 2210S	6091.5909.02
Further ALIS software options: ALIS + Hopping (FH) – restricted –, offers on request	R&S®GS 2211S	6091.6005.02

Certified Quality System
ISO 9001
DQS REG. NO 1954 QM

Certified Environmental System
ISO 14001
DQS REG. NO 1954 UM

Certified Quality System
AS 9100
DQS REG. NO 1954 AS

Certified Quality System
AQAP-110
Audit report GP Q2-NO 96.07

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