

SPiRiT STANAG 4539

STANAG 4539 software is the ultimate solution for fast and reliable HF communication.

The modem is capable to work with high-density constellations and high rate FEC which provides communication at high data rates. Properties of waveform enable fast and reliable signal acquisition. The modem features automatic recognition of low (75 bps), medium (150...2400 bps) and high (3200...9600) data rate waveforms. Modem design is optimized for use under severe propagation conditions with very fast fading, high number of rays, and low SNR.

The modem utilizes modern digital processing technologies such as iterative (turbo) equalization, channel estimation and detection that provide ultimate performance under extensive range of propagation conditions.

SPiRiT STANAG 4539 data modem portable software is fully compatible with STANAG 4539 recommendation. This software incorporates bitrates from 75 to 9600 bps.

Specifications

PLATFORM	TI C55xx
Peak MIPS	230
Program Memory, KB	100
Data Memory, KB	600

Performance Data

Rates	Coded - 75, 150, 300, 600, 1200, 2400, 3200, 4800, 6400, 8000, 9600 Uncoded - 4800, 12800
Interleavers	For 3200...12800 bps - 0.12, 0.36, 1.08, 2.16, 4.32, 8.64 For 75...2400 bps - 0., 0.6 and 4.8 sec
Multipath tolerance	12 msec @ 75 bps; 8 msec @ 150...1200 bps; 6 msec @ 2400 bps; 12 msec @ 3200...12800 bps
Acceptable fading bandwidth	50 Hz @ 75 bps; 20 Hz @ 150...600 bps; 15 Hz @ 1200...2400 bps; 3 Hz @ 3200...12800 bps
Frequency offset	+/-75 Hz
Frequency drift	3.5 Hz/sec slope
Clock offset	+/-100 ppm
Bandwidth	3 kHz
Options	<ul style="list-style-type: none"> • STANAG 4415 • STANAG 4285/4529 • MIL-STD-188-110A Appendix B (39 Tone Parallel Waveform) • V.14 framing

Benefits

- Easy portable
- Highly optimized

Key Features

- MIL-STD-188-110A compatible
- Performance better than required by the standard

Applications

- HF modems
- Maritime, long-haul digital communications
- Tactical voice and data communication equipment

Availability

- PC Now
- TI C54xx Now
- TI C55xx Now
- TI C64xx Now

Features

- Capable to work with high-density constellations (up to 64 QAM) and high rate FEC
- Provides communication at high data rates (75...9600 bps for coded transmission, 12800 for uncoded)
- Combines 110A (para 5.3) and 110B (App.C) waveforms - enables fast and reliable signal acquisition
- Optimized for use under severe propagation conditions with very fast fading, high number of rays and low SNR.
- Utilizes iterative (turbo) equalization, channel estimation and detection that provide ultimate performance under extensive range of propagation conditions.
- Interleavers up to 8.64 sec
- Autobaud capability
- Special design of reinserted preambles gives unique capability to provide blind data synchronization

CONTACTS

General: 1-408-540-6033
www.spiritdsp.com

Russia: 7-495-661-21-78
France: 33-623-021-563
Israel: 972-3-736-9763
Italy: 39-02-6680-2557

Germany: 49-641-48-08300
USA: 1-888-374-4410
Canada: 1-888-374-4410
Japan: +81-3-6361-8080

Taiwan: 886-2-2888-1010, 886-2-2696-0055
Korea: 82-70-7780-9910, 82-2-33473-5080
China: 86-21-63502288-820
Singapore: 65-6744- 9789