

# Low-Latency HF Modem

Provides extremely low latency < 7 ms (Tx + Rx , including all filters).

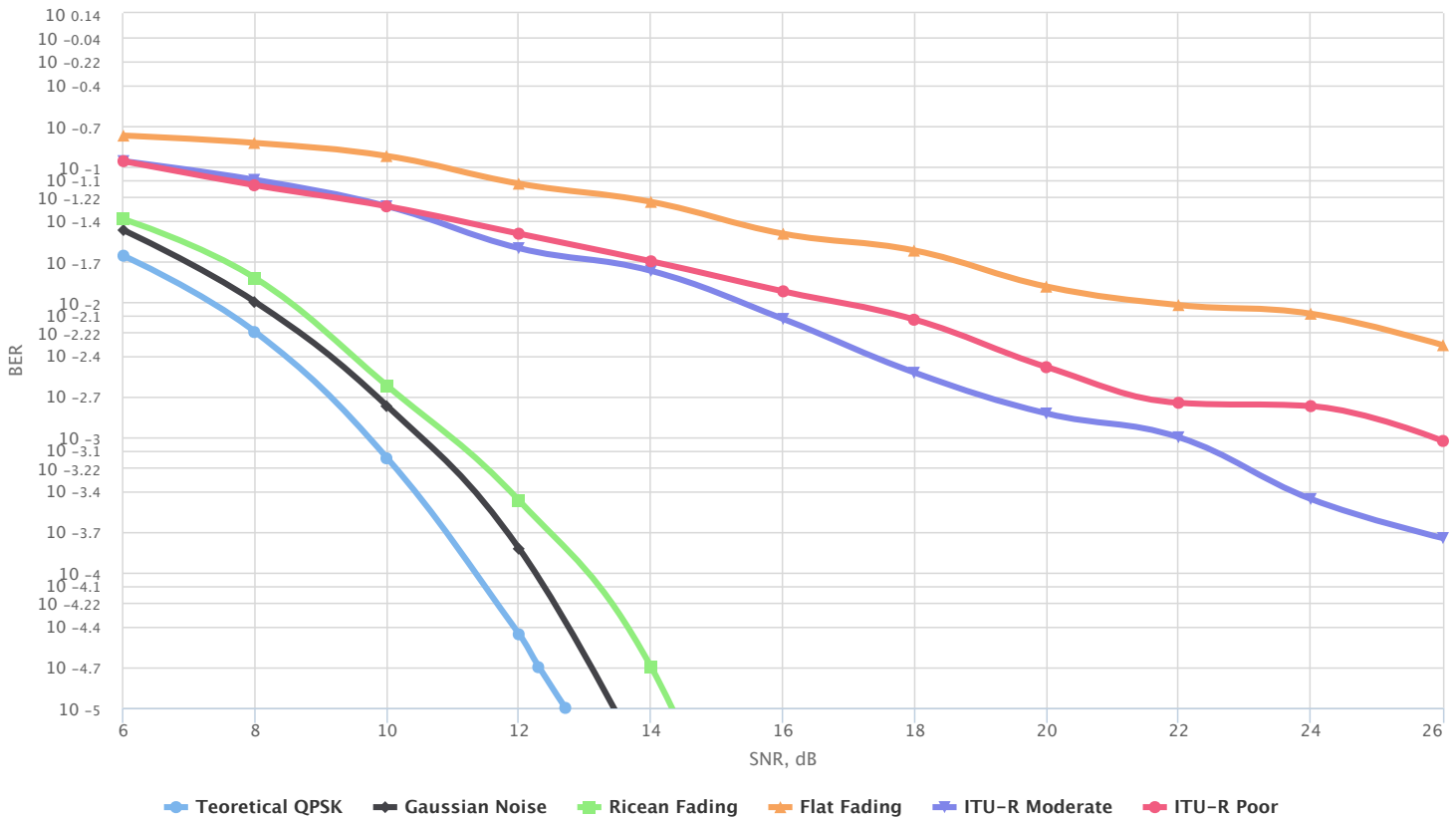
For the following applications:

- High Frequency Trading (HFT) link establishment
- Digital Voice over HF (in conjunction with robust vocoder)
- Other markets, where data transmission on HF with low delay is important

## Features.

- low latency: < 7.0 ms, including both TX + RX parts and the shortened shaping filter and matched filters, excluding interleaver and FEC
- pilot symbol assistant modulation (PSAM) waveform: BPSK, QPSK, 8-PSK, 16-APSK (with low peak-to-average power ratio (PAPR))
- symbol rate: 2400 symbol/s; data rate: 1920 ... 7680 bit/s
- maximum frequency offset:  $\pm 30$  Hz
- efficient adaptive MMSE equalizer
- blind acquisition without preamble
- modem control via conventional AT-command set
- additional FEC with soft decisions can be established
- portable float-point C-code (MSVC, gcc, TI DSP compiler)
- practice approved (TI DSP C6748/OMAP L-138 platform)
- performance:

Low latency HF modem BER performance



**Guarantee And Support.** DSPINI guarantees a quality and accordance of all technical characteristics of the product to requirement of current specifications. Testing and other method of quality control are used for guarantee support.

**Any Platforms.** DSPINI can port this modem software into any other DSP, RISC or general- purposes platform inshort time: 1-2 months.

**Licensing Terms.** To use the modem software, customer should obtain a license from DSPINI only.

**Customization.** The modem can be customized under any specific requirements- other bandwidth, latency, symbol rate and data rates, etc. Please contact with us for details.

**Related Software.** This modem may be effectively used in a bundle with other DSPINI's products:

- TWELP vocoders, including "robust" versions, for any bit rates from 300 bps up to 4800 bps and higher.
- Linear and acoustic echo cancellers,
- Noise cancellers and Speech Enhancers,
- Other products.

**Downloads:**

- [Datasheet \(pdf\)](#)
- TI DSP C6748/OMAP L-138 platform evaluation package (zip) — on request
- User's Guide document (pdf) — on request

Please contact us by e-mail:

**[request@dspini.com](mailto:request@dspini.com)**

or by phone:

+44 20 81 33 00 44

+33 9 70 40 33 99