

DSP/FPGA CAPABILITIES

Demodulation Types

The DSP/FPGA capabilities enable the GEN-4 communications reconnaissance systems to currently demodulate these formats:

- Amplitude Modulation (AM)
- Frequency Modulation (FM)
- Binary Phase Shift Keying (BPSK)
- Quadrature Phase Shift Keying (QPSK)
- Offset Quadrature Phase Shift Keying (O-QPSK)
- 16-State Quadrature Amplitude Modulation (16-QAM)
- Gaussian Minimum Shift Keying (GMSK)
- Others

Decoder Types

The DSP/FPGA capabilities of the GEN-4 Systems support the following decoder types:

- Convolutional Encoder, $k=7$, (133,171), rate = $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
- Bose-Chaudhuri-Hocquenghem (BCH) 63,57
- Reed-Solomon (RS) (31,15)
- Turbo Code
- $K=5$ Viterbi
- Integrated into Voice CODEC, golay and Hamming codes
- FPGA Sequential
- Various Voice CODECS

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