

FX/MX919B

Half Duplex 4FSK Packet Data Modem

The FX/MX919B is a CMOS integrated circuit, containing all of the baseband signal processing and Medium Access Control (MAC) protocol functions required for a high performance, half duplex 4FSK wireless packet data modem.

The modem is backwards compatible with the FX/MX919A, but offers better performance during radio link fading and selectable Tx symbol shapes. The device is programmable at most standard bit-rates from a range of Xtal/clock frequencies.

The FX/MX919B assembles application data, adds forward error correction (FEC) and error detection (CRC) information and interleaves the result for burst-error protection.

After adding symbol and frame codewords, it converts the packet into a filtered 4-level analogue baseband signal. In receive mode, the modem performs the reverse function using the analogue baseband signals from the receiver discriminator.

Recovered application data is supplied to the processor after error correction. Any uncorrected errors will then be flagged. A readout of the SNR value during receipt of a packet is also provided.

The FX/MX919B uses data block sizes and FEC/CRC algorithms suitable for applications which require high-speed transfer of data over narrow-band wireless links.

Features

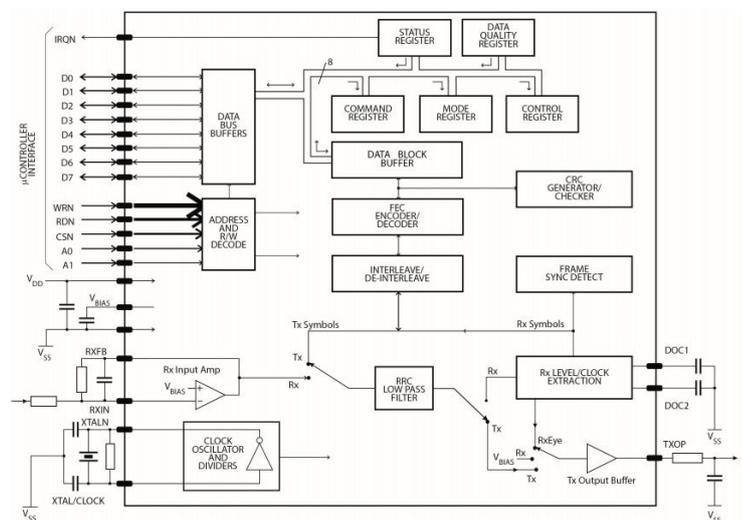
- 4FSK modulation
- Half duplex, 4.8kb/s to 19.2kb/s operation
- Full data packet framing
- Flexible operation modes
- Host processor interface

Applications

- High-speed packet data
- Wireless bar code readers
- Point-of-sale terminals

Supply Requirement

- 3.0 to 5.5V



FX/MX919B Block Diagram



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