CML Semiconductor Products
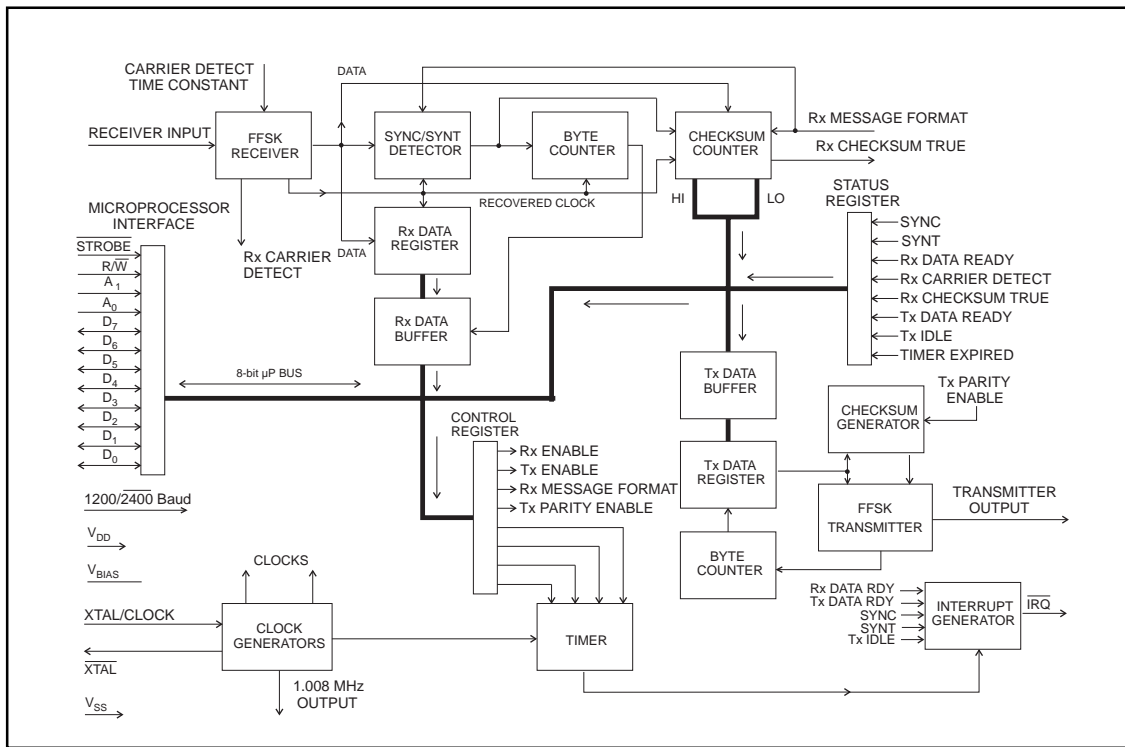
PRODUCT INFORMATION

FX529 FFSK Modem for Trunked Radio Systems

Product Summary

Features

- **PAA 1382 and General Purpose Trunked Radio Applications**
- **Meets ETSI I-ETS 300 230 Binary Signalling Specification**
- **Full-Duplex 1200 Baud Operation**
- **High Intelligence**
- **Error Checking in Receive**

- **Frame SYNC/SYNT Detection**
- **Preamble Generation**
- **µProcessor Compatible Interface**
- **Carrier Detection On-Chip**
- **General Purpose Timer**
- **Error Check Word Generation**

FX529

Brief Description

The FX529 is a single-chip CMOS 1200 baud FFSK Modem, designed primarily for use in trunked radio systems but may also be employed in other general purpose radio or line data communication applications.

This device conforms to both the PAA 1382 French trunked radio, and the proposed ETSI I-ETS 300 230 "Binary Interchange of Information and Signalling" specifications.

The FX529 is full duplex at 1200 baud and includes an 8-bit parallel microprocessor interface and a programmable timer which may be set for interrupt periods of between 8 and 120 bits.

Preamble data and an error-check word are automatically generated in the transmit mode.

Error checking is performed and the 16-bit SYNC

("1011010000110011") or SYNT ("0100101111001100") word detected in the receive mode.
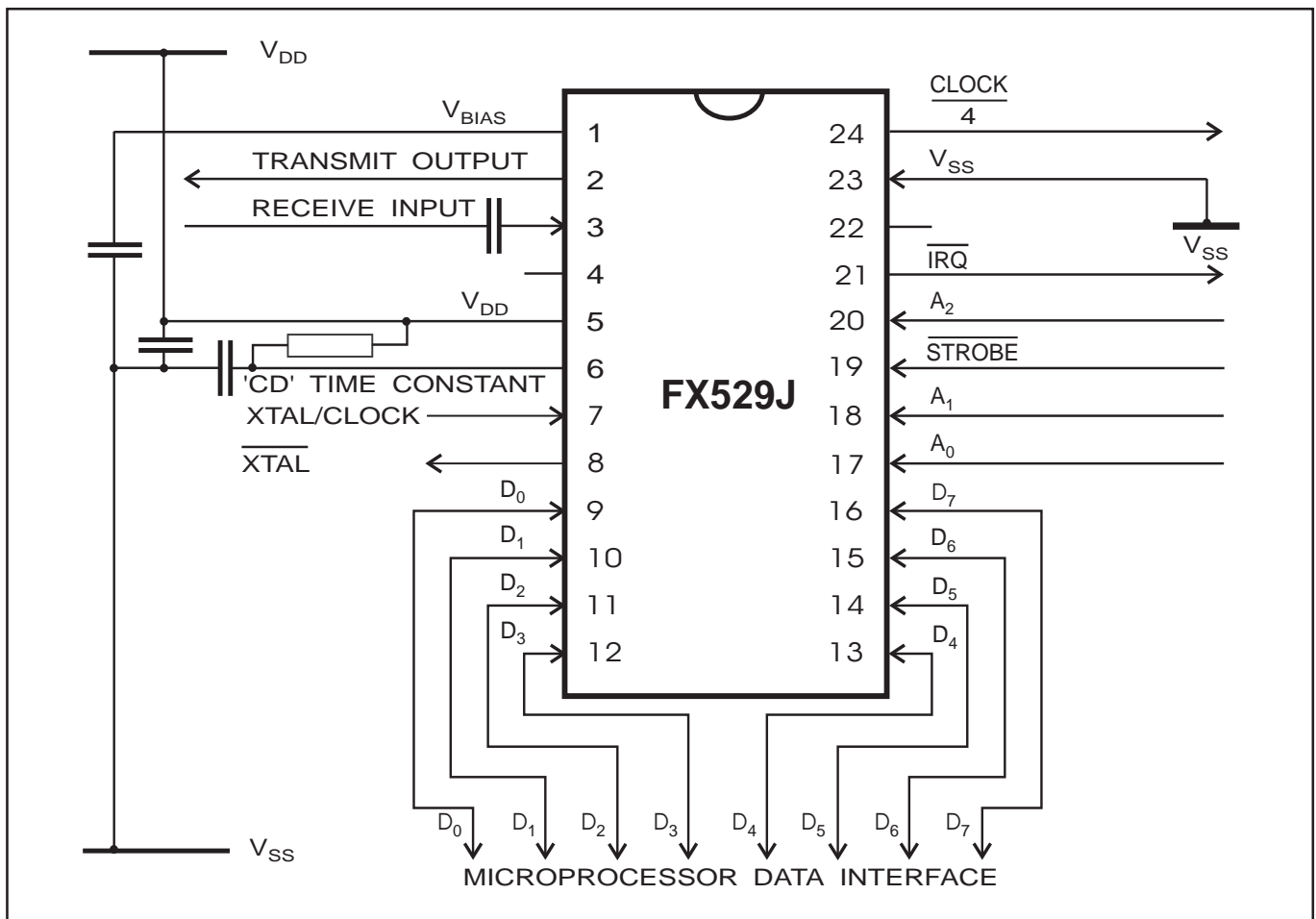
An on-chip Xtal/clock generator requiring an external 4.032MHz Xtal or clock input provides all microcircuit filter sampling clocks and modem timings whilst also supplying a "Clock " 4" output (1.008MHz).

Pin and function compatible with the FX429, the FX429 data sheet should be consulted when using this device

The FX529, which has a powersaving facility, requires a single 5-volt power supply and is available in both cerdip DIL and plastic SMD packages.

FX529 - Brief Specification

Function	FFSK Modem for trunked radio systems
Supply Voltage Range	4.5 to 5.5 volts
Supply Current	(5.0V) 7.0 mA maximum
Control	8-bit parallel
Duplex	Full
Data Rate	1200 baud
Xtal/Clock Frequency	4.032 MHz
Package Styles	24-pin cerdip DIL (FX529J) 24-pin PLCC (FX529LG) 24-pin PLCC (FX529LS)

Package Styles Available

FX529J   24-pin cerdip DIL   (J4)

FX529LG   24-pin quad plastic encapsulated
                bent and cropped   (L1)

FX529LS   24-lead plastic leaded
                chip carrier   (L2)

Full details of this product are available from CML or its distributors