



Preliminary Information

XR-29V00

XR-29V00 Fax/Data/Voice Modem Data Pump with Caller ID

T-75-33-90

GENERAL DESCRIPTION

The XR-29V00 is a two chip set that provides the complete data pump function for Group III 9600 bit per second (bps) fax, V.22bis data, Voice and Caller ID operation.

The XR-29V00 consists of the XR-29V01 and the XR-29P02. The XR-29V01 is a digital signal processor-based chip supporting:

- Modulation/demodulation
- ADPCM
- DTMF generation and detection functions.

The XR-29P02 is a combination analog and digital chip. Its analog portions support:

- Transmit and receive filters
- A/D and D/A functions
- Transmit level attenuator
- Programmable gain amplifier.

The digital portion of the XR-29P02 supports:

- Transmit clock
- Async/sync converter
- Interface circuit between XR-29V01 and microcontroller
- Receive digital phase locked loop.

When the XR-29V00 is combined with an XR-2942, XR-2943 or an 80C31 μ c (with EXAR firmware), the standard features are:

Extended AT commands, Class 2 Fax interface, all the functions for Group III 9600 bps fax, V.22bis data, Voice with 4:1 compression and Caller ID operation.

The XR-2942 and XR-2943 are enhanced microcontrollers and offer additional features:

XR-2942: V.42 error control, MNP 2-5 error control / data (2:1) compression

XR-2943: V.42 error control, V.42 bis data (4:1) compression, MNP 2-5 error control / data (2:1) compression

The XR-29V01 and XR-29P02 are available in 52 pin PLCC, 52 pin QFP and 64 pin SQFP packages respectively. Power required is a single +5 volt for the XR-29V01 and ± 5 volts for the XR-29P02. Both chips utilize CMOS technology for low power operation.

FEATURES

V.29 / V.27ter / V.21 Ch. 2 Fax Modes
 V.22bis / V.22 / 212A / 103 Data Modes
 Standard Microcontroller Interface
 Analog, Remote and Local Digital Test Facilities
 DTMF Generator and DTMF Decoder
 2400 / 1200 / 300 BPS Full Duplex DATA Mode
 CMOS Technology
 Automatic Adaptive Equalization
 Guard Tone Generators
 Call Progress Monitor Mode
 ADPCM Voice Compression
 Caller Identification

ORDERING INFORMATION

Part Number	Package	Operating Temperature
XR-29V01CJ	PLCC	0°C to 70°C
XR-29V01CQ	QFP	0°C to 70°C
XR-29V01CSQ	SQFP	0°C to 70°C
XR-29P02CJ	PLCC	0°C to 70°C
XR-29P02CQ	QFP	0°C to 70°C
XR-29P02CSQ	SQFP	0°C to 70°C

PIN ASSIGNMENT (For other pin assignment diagrams refer to the end of this datasheet)

