

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

## 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 $\mu$ 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  $\pm 5$  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)

