XRT72L13

MULTIPLEXER/FRAMER IC

OCTOBER 1999 REV. 1.0.0

GENERAL DESCRIPTION

The XRT72L13 is a fully integrated, low power, Multiplexer/Framer IC which performs Multiplexing/Demutiplexing of 28 DS1or 21 E1 signals into/from a DS3 signal with either M13 or C-bit parity frame format, performs Clear Channel DS3 Framing, and supports High speed HDLC/LAPD data linking.

The XRT72L13 also contains M12 and M23 bit-interleaving multiplexing/demultiplexing functions with necessary stuffing and destuffing control. Seven internal DS2/G.747 framers are included to support Mux/Demux purposes.

The XRT72L13 contains an integral DS3 Framer which provides Clear Channel DS3 Framing and Error Accumulation in accordance with ANSI/ITU-T specifications.

The XRT72L13 provides the intelligent functions of DS3/DS2 mode control, signaling control, error and alarm reporting and handles the HDLC/LAPD data link through internal registers accessible via an 8-bit parallel, memory mapped, µProcessor interface.

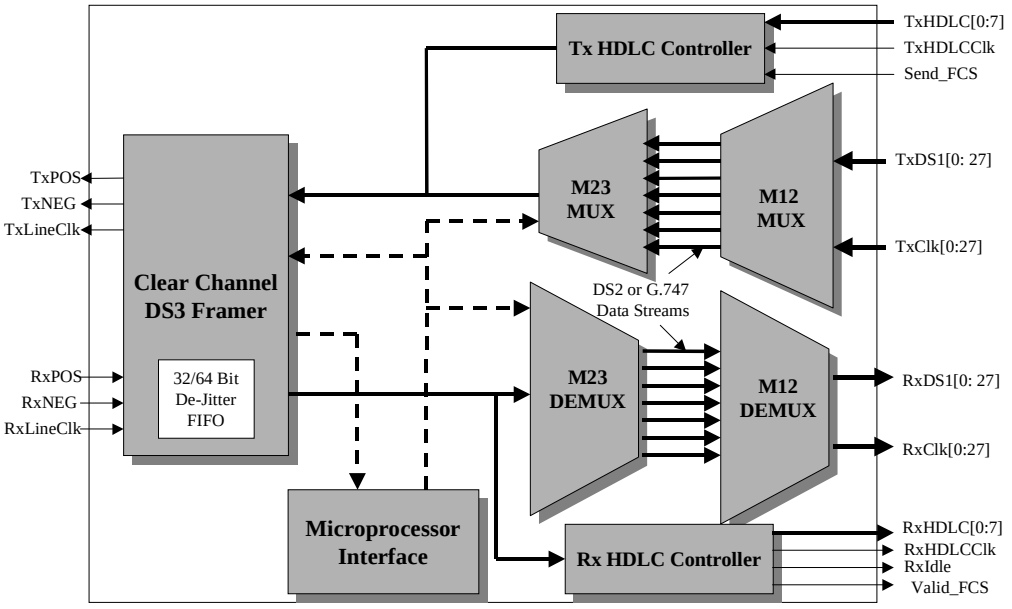
FEATURES

- A fully integrated device that supports:
  - Multiplexing/Demultiplexing Mode
  - Clear Channel DS3 Framer Mode
  - High Speed HDLC Controller Mode
- Supports Multiple Loop-back modes
- Smooths gapped clock signals
- Supports Intel or Motorola PIO µP interfaces
- Available in a 208 pin PQFP package
- Requires a single +3.3V Power Supply
- Operates over the Industrial Temperature Range

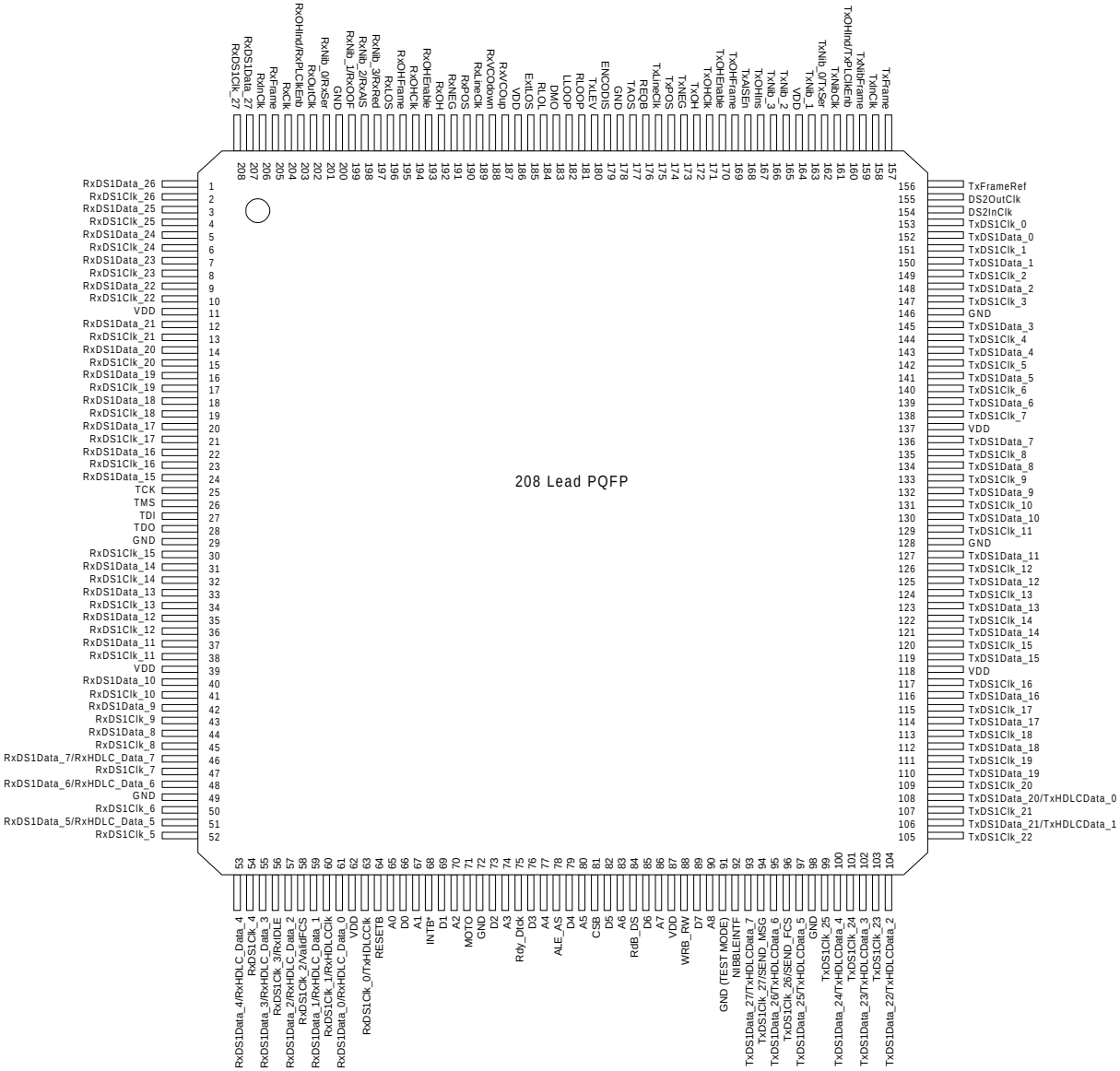
APPLICATIONS

- M13 Multiplexer/Demuliplexer Applications.
- Frame Relay Systems
- Digital Access and Cross Connect Systems
- Local Digital Switch
- Add/Drop Multiplexers
- DS3 Data/Channel Service Units.
- Test Equipment

BLOCK DIAGRAM OF THE XRT72L13 MULTIPLEXER/FRAMER



PIN OUT OF THE XRT72L13



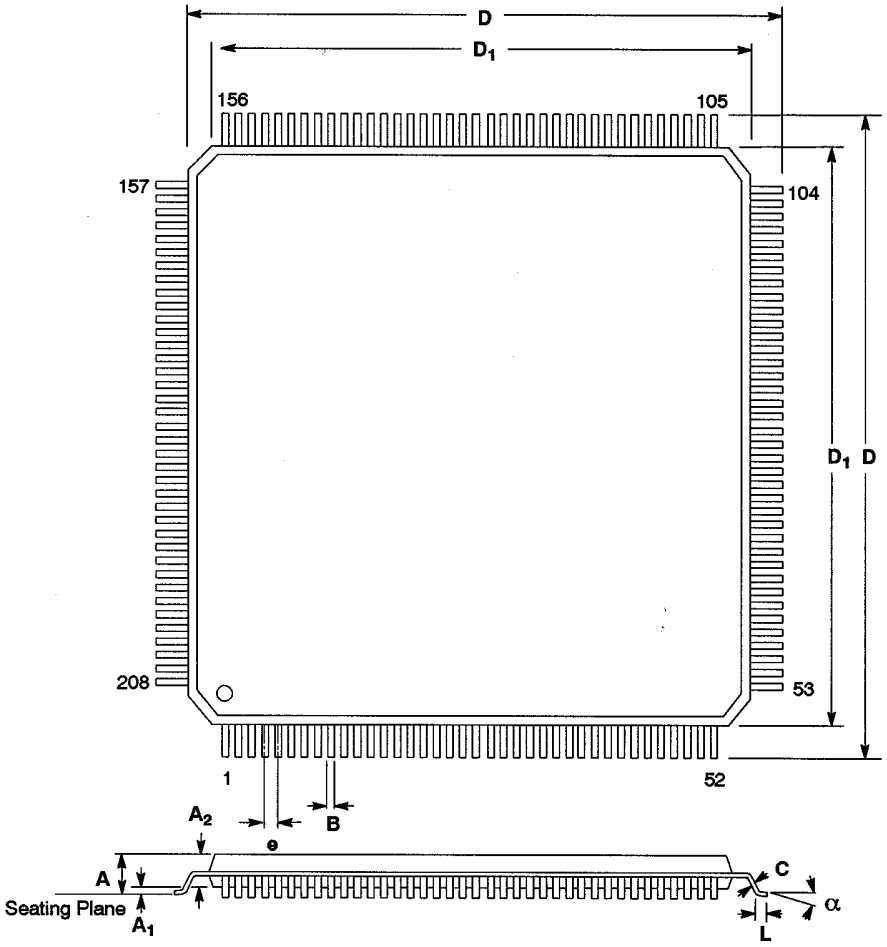
ORDERING INFORMATION

PART #	PACKAGE	OPERATING TEMPERATURE
XRT72L13IQ208	208 pin PQFP	-40°C to +85°C

PACKAGE INFORMATION

208 LEAD PLASTIC QUAD FLAT PACK
(28 mm x 28 mm, QFP)

Rev. 1.00



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.128	0.161	3.25	4.10
A_1	0.002	0.020	0.05	0.50
A_2	0.126	0.142	3.20	3.60
B	0.007	0.011	0.17	0.27
C	0.004	0.008	0.09	0.20
D	1.197	1.212	30.40	30.80
D_1	1.098	1.106	27.90	28.10
e	0.0197 BSC		0.50 BSC	
L	0.018	0.030	0.45	0.75
α	0°	8°	0°	8°

Note: The control dimension is the millimeter column

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