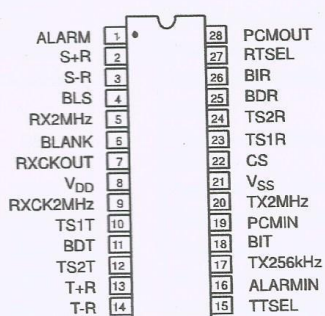
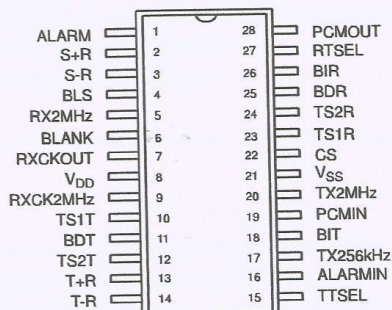


Annexure For 61/15/6137

PIN CONFIGURATION



28 Lead PDIP (0.600")



28 Lead SOIC (Jedec, 0.300")

PIN DESCRIPTION

Pin #	Symbol	Type	Description
1	ALARM	O	Octet Timing Alarm. When active, indicates loss of received bipolar violations that are used for octet timing. Active high.
2	S+R	I	Positive AMI Data to Receiver. Positive data from the XR-T6164 receive-side. Active low.
3	S-R	I	Negative AMI Data to Receiver. Negative data from the XR-T6164 receive-side. Active low.
4	BLS	I	Byte Locking Supervision. When active, causes blanking of PCMOUT under received alarm conditions. Active low.
5	RX2MHz	I	Receiver 2.048MHz Clock. Used to clock out PCM data.
6	BLANK	I	PCMOUT Data Blanking. When active, forces PCMOUT data to all ones (AIS). Active high.
7	RXCKOUT	O	128kHz Extracted Clock. Clock recovered from received data.
8	V _{DD}		+5V ± 10% Power Source.
9	RXCK2MHz	I	2.048MHz Clock. Used by receiver clock recovery circuit.
10	TS1T	I	Transmitter Time-slot 1 Input.
11	BDT	O	Transmitter Byte Deletion Flag. Active when a transmit byte is deleted. Active high.
12	TS2T	I	Transmitter Time-slot 2 Input.
13	T+R	O	Transmit Positive AMI Data Output. Data to XR-T6164 positive transmitter input. Active low.
14	T-R	O	Transmit Negative AMI Data Output. Data to XR-T6164 negative transmitter input. Active low.
15	TTSEL	I	Transmit Time-slot Select. When high, pin 10 is selected; when low, pin 12 is selected.
16	ALARMIN	I	Alarm Input. When active, inhibits insertion of violations used for octet timing in transmitter output. Active high.

PIN DESCRIPTION (CONT'D)

Pin #	Symbol	Type	Description
17	TX256kHz	I	Transmitter 256kHz Clock. Used to output 64kbps encoded data.
18	BIT	O	Transmitter Byte Insertion Flag. Active when a transmit byte is repeated. Active high.
19	PCMIN	I	Transmitter PCM Input. Data read from the system PCM bus.
20	TX2MHz	I	Transmitter 2.048MHz Clock. Clocks PCM data in PCMIN.
21	V _{SS}		Ground.
22	CS	O	Clock Seek. Indicates that clock recovery circuit has loss of lock with received data. Active high.
23	TS1R	I	Receiver Time-slot 1 Input.
24	TS2R	I	Receiver Time-slot 2 Input.
25	BDR	O	Receiver Byte Deletion Flag. Active when received data byte is deleted. Active high.
26	BIR	O	Receiver Byte Insertion Flag. Active when a received data byte is repeated. Active high.
27	RTSEL	I	Receive Time-slot Select. When high, pin 23 is selected; when low, pin 24 is selected.
28	PCMOUT	O	Received PCM Output Data. Data sent to the system PCM bus.

ELECTRICAL CHARACTERISTICSTest Conditions: $V_{DD} = 5V \pm 10\%$, $T_A = 25^\circ C$, Unless Otherwise Specified

Symbol	Parameter	Min.	Typ.	Max.	Unit	Conditions
DC Electrical Characteristics						
V_{IH}	Logic 1	2.4			V	
V_{IL}	Logic 0			0.4	V	
V_{DD}	Supply	4.5		5.5	V	
I_{DD}	Supply Current		500		μA	Dynamic Supply Current
I_{IL}	Input Leakage			1	μA	
V_{OL}				0.4	V	At 1.6mA
V_{OH}		2.4			mA	At 0.4mA
AC Electrical Characteristics						
General						
t_r, t_f	Output Rise/Fall Time			20	ns	All Outputs
Receiver						
t_{RS}	RX2MHz Rising Edge to TS Rising Edge Set Up Time	0		$t_{RXL}-100$	ns	Figure 3
t_{RH}	RX2MHz Rising Edge to TS Falling Edge Hold Time	0		$t_{RXL}-100$	ns	Figure 3
t_{DRS}	TS Rising Edge to Leading Edge of PCMOUT D0 Bit Delay			10	ns	Figure 3
t_{DRH}	TS Falling Edge to Trailing Edge of PCMOUT D7 Bit Hold Time	0		10	ns	Figure 3
t_{RXD}	RX2MHz Rising Edge to PCMOUT Bits D1 Through D6 Rising Edge Delay			10	ns	Figure 3
t_{PW}	PCMOUT Pulse Width		488		ns	Figure 3
t_{RXH}	RX2MHz High Time		244		ns	Figure 3
t_{RXL}	RX2MHz Low Time		244		ns	Figure 3
t_{RXCLK}	RX2MHz Period		488		ns	$\pm 100ppm$
Transmitter						
t_{TS}	TS Rising Edge to TX2MHz Set Up Time	20		$t_{TXL}-100$	ns	Figure 5
t_{TH}	TS Falling Edge to TX2MHz Hold Time	0		$t_{TXL}-100$	ns	Figure 5
t_{DS}	PCMIN Edge to TX2MHz Set Up Time	100			ns	Figure 5
t_{DH}	PCMIN Edge to TX2MHz Hold Time	100			ns	Figure 5
t_{TXH}	TX2MHz High Time		244		ns	Figure 5
t_{TXL}	TX2MHz Low Time		244		ns	Figure 5
t_{TXCLK}	TX2MHz Period		488		ns	$\pm 100ppm$

ELECTRICAL CHARACTERISTICS (CONT'D)

Symbol	Parameter	Min.	Typ.	Max.	Unit	Conditions
AC Electrical Characteristics (Cont'd)						
Transmitter (Cont'd)						
tKXH	TX256kHz High Time		1.95		μs	
tKXL	TX256kHz Low Time		1.95		μs	
tKXCLK	TX256kHz Period		3.9063		μs	
tBDTH	BDT High Time	488			ns	
tBITH	BIT High Time	12.5			μs	
tALH	ALARMIN High Time	15.6			μs	

Specifications are subject to change without notice

ABSOLUTE MAXIMUM RATINGS

Supply Voltage 20V
 Operating Temperature 0°C to +70°C

Storage Temperature -65°C to +150°C