

17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

IF I/P AND O/P SPECIFICATIONS		
SIGNAL	IMPEDANCE	FREQUENCY RANGE
IF I/P J1-32B	50/75 OHM RETURN LOSS > 15dB	$F_c = 44\text{MHz}$ $BW = 6\text{ MHz}$
IF O/P J1-1B	50 OHM	$F_c = 44\text{MHz}$ $BW = 6\text{ MHz}$
IF O/P SAMPLE FRONT PANEL	50 OHM	$F_c = 44\text{MHz}$ $BW = 6\text{ MHz}$

IF SIGNAL LEVEL SPECIFICATIONS		
CIRCUIT LOCATION	NOMINAL LEVEL (PEP)	OPERATING RANGE (PEP)
A IF I/P	$I/P\ GAIN$ HI = -17 dBm MED = -12 dBm LO = -7 dBm	$I/P\ GAIN$ HI = $-22\text{ TO }-12\text{ dBm}$ MED = $-17\text{ TO }-7\text{ dBm}$ LO = $-12\text{ TO }-2\text{ dBm}$
B	-8 dBm	-13 TO -3 dBm
C	-9 dBm	-16 TO -6 dBm
D	-9 dBm	-16 TO -6 dBm
E	-6 dBm	-13 TO -3 dBm
F	-7 dBm	-14 TO -4 dBm
G IF O/P	$O/P\ GAIN$ HI = -6 dBm LO = -11 dBm	$O/P\ GAIN$ HI = $-13\text{ TO }-3\text{ dBm}$ LO = $-18\text{ TO }-8\text{ dBm}$
H IF O/P SAMPLE	-27 dBm	-34 TO -16 dBm

NOTE: ALL POWER LEVELS ARE IN TERMS OF PEP. THE AVERAGE POWER FOR A QAM SIGNAL IS 6dB LOWER THAN THE PEP.

LOGIC SIGNALS		
SIGNAL	OPERATING RANGE	OPERATING CONDITIONS
P/A FAULT O/P J1-7C	LOW IMPEDANCE = FAULT HIGH IMPEDANCE = NO FAULT	FAULT CONDITION OCCURS WHEN J30 IS PLACED INTO THEN "IN" POSITION AND THE IF I/P SIGNAL IS 1 dB OR LESS BELOW THE PEAK LEVEL OF THE IF I/P SIGNAL AND NO I/P FAULT CONDITION EXISTS.
I/P FAULT O/P J1-8C	LOW IMPEDANCE = FAULT HIGH IMPEDANCE = NO FAULT	FAULT CONDITION OCCURS WHEN THE MODULE IS PLACED INTO THE ALC MODE AND THE DETECTED I/P LEVEL FALLS BELOW THE SPECIFIED IF I/P RANGE.
MUTE O/P J1-9C	LOW IMPEDANCE = MUTE HIGH IMPEDANCE = NO MUTE	MUTING OCCURS WHEN THE MODULE IS PLACED INTO THE ALC MODE AND WHEN EITHER AN I/P FAULT OR P/A FAULT OR EXTERNAL MUTE I/P SIGNAL IS ACTIVE.
MUTE I/P J1-10C	0V = ACTIVATE MUTE +12V = DEACTIVATE MUTE	MUTE I/P IS CONTROLLED EXTERNALLY TO THE MODULE.
INTERLOCK O/P J1-12	0V	TIES THE INTERLOCK LINE IN THE TRANSMITTER TO GROUND INDICATING THAT THE MODULE IS PRESENT.

ANALOG SIGNALS	
SIGNAL	OPERATING RANGE
INNER LOOP IN J1-24C	0 TO 9V DC 1V = 100%
INNER LOOP OUT J1-23C	0 TO 9V DC 1V = 100%
OUTER LOOP IN J1-25C	0 TO 9V DC 1V = 100%
OUTER LOOP OUT J1-26C	0 TO 9V DC 1V = 100%
ALC VOLTAGE O/P J1-11C	0 TO 12V DC 100 OHM O/P IMPEDANCE

LED SIGNALS		
SIGNAL	OPERATING RANGE	OPERATING CONDITIONS
P/A FAULT LED RED	ILLUMINATED = FAULT EXTINGUISHED = NO FAULT	FAULT CONDITION OCCURS WHEN J30 IS PLACED INTO THEN "IN" POSITION AND THE IF I/P SIGNAL IS 1 dB OR LESS BELOW THE PEAK LEVEL OF THE IF I/P SIGNAL AND NO I/P FAULT CONDITION EXISTS.
I/P FAULT LED RED	ILLUMINATED = FAULT EXTINGUISHED = NO FAULT	FAULT CONDITION OCCURS WHEN THE DETECTED I/P LEVEL FALLS BELOW THE SPECIFIED I/P RANGE.
ALC FAULT LED RED	ILLUMINATED = FAULT EXTINGUISHED = NO FAULT	FAULT CONDITION OCCURS WHEN THE ALC VOLTAGE EXCEEDS +8 VOLTS.
MUTE LED RED	ILLUMINATED = FAULT EXTINGUISHED = NO FAULT	MUTING OCCURS WHEN THE MODULE IS PLACED INTO THE ALC MODE AND WHEN EITHER AN I/P FAULT OR P/A FAULT OR EXTERNAL MUTE I/P SIGNAL IS ACTIVE.

POWER SUPPLY LINES	
SUPPLY LINE	CURRENT DRAW
+12 VOLTS	LESS THAN 800mA
-12 VOLTS	LESS THAN 100mA

DELAY EQUALIZER SPECIFICATIONS				
EQUALIZER	CENTER FREQUENCY	0.2 dB RIPPLE BANDWIDTH	DELAY	USAGE
DELAY AND ATTENUATION EQUALIZER #1	44 MHz	6 MHz	60 nsec	USED WITH ADJACENT AND NONADJACENT DIGITAL SYSTEM AS WELL AS ADJACENT ANALOG SYSTEMS.
DELAY EQUALIZER #2	44 MHz	6 MHz	20 nsec	USED WITH THE LUMPED ELEMENT BANDPASS FILTER ALSO ON THIS MODULE.
DELAY AND ATTENUATION EQUALIZER #3	42 MHz	6 MHz	48 nsec	USED WITH ADJACENT AND NONADJACENT ANALOG SYSTEMS.

FILTER SPECIFICATIONS					
FILETER	CENTER FREQUENCY	0.2 dB RIPPLE BANDWIDTH	REJECTION AT $F_c +/- 3\text{ MHz}$	REJECTION AT $F_c +/- 6\text{ MHz}$	GROUP DELAY
BPF	44 MHz	6 MHz	<0.2 dB	>15 dB	20 nsec
SAW	44 MHz	5 MHz	>20 dB	>70 dB	20 nsec

ALC SPECIFICATIONS	
PIN ATTENUATOR GAIN	ALC VOLTAGE
-6	1.25
-11	0.90
-16	0.76
-21	0.67
-26	0.61

ITS CORPORATION		REV	ECN	DATE	APV
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MATERIAL					
DATE	REV	ECN	APV		
1/19/98					
FINISH	CHK	BKW	1/19/98	1585-3127 1	
REL	BLW	BLW	1/19/98	D	SCALE
REV	ECN	APV			
4	3	2	1		
1	2	3	4	5	6

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