

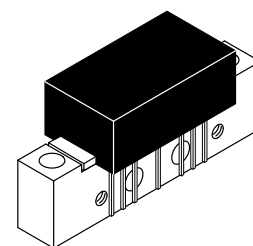
The RF Line

128-Channel (860 MHz) CATV Line Extender Amplifier

- Specified for 128-Channel Performance
- Broadband Power Gain — @ f = 50 MHz
G_p = 27.2 dB (Typ)
- Broadband Noise Figure
NF = 6 dB (Typ) @ 860 MHz
- All Gold Metallization
- Improved CTB Performance over Previous Version

MHW8272A

**27 dB GAIN
860 MHz
128-CHANNEL
CATV AMPLIFIER**



CASE 714Y-03, STYLE 1

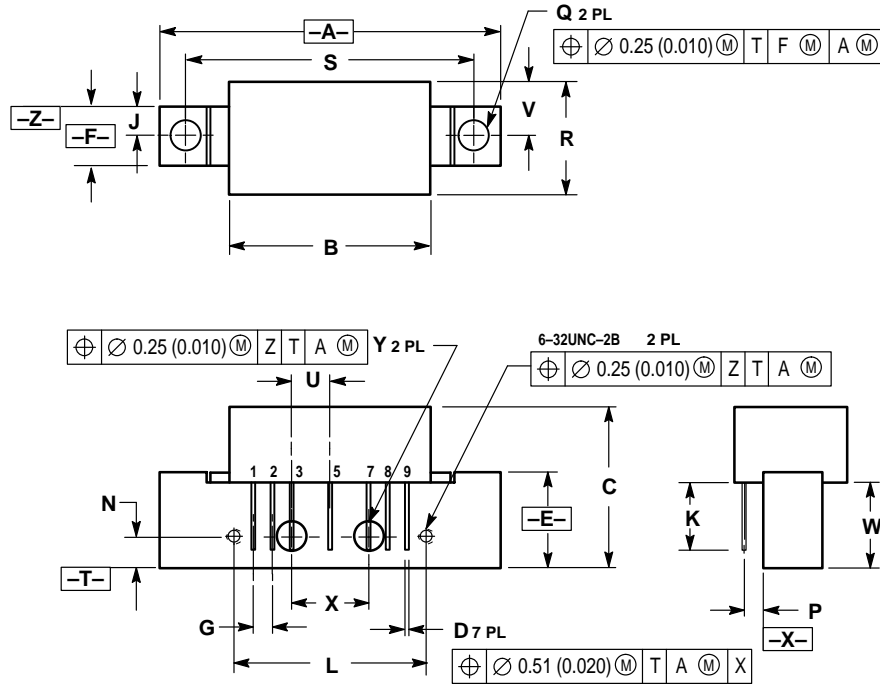
MAXIMUM RATINGS

Rating	Symbol	Value	Unit
RF Voltage Input (Single Tone)	V _{in}	+55	dBmV
DC Supply Voltage	V _{CC}	+28	Vdc
Operating Case Temperature Range	T _C	-20 to +100	°C
Storage Temperature Range	T _{stg}	-40 to +100	°C

ELECTRICAL CHARACTERISTICS (V_{CC} = 24 Vdc, T_C = +30°C, 75 Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit	
Frequency Range	BW	40	—	860	MHz	
Power Gain	G _p	50 MHz	26.2	27.2	27.8	dB
		860 MHz	27	27.7	29.5	
Slope	S	0	0.6	2	dB	
Gain Flatness (40–860 MHz, Peak to Valley)	—	—	0.4	0.8	dB	
Return Loss — Input/Output (Z ₀ = 75 Ohms)	IRL/ORL	@ 40 MHz	20	—	—	dB
		@ f > 40 MHz (Derate)	—	—	0.007	dB/MHz
Composite Second Order (V _{out} = +38 dBmV/ch., Worst Case)	CSO ₁₂₈	—	-69	-64	dBc	
Cross Modulation Distortion @ Ch 2 (V _{out} = +38 dBmV/ch., FM = 55 MHz)	XMD ₁₂₈	—	-65	-62	dBc	
Composite Triple Beat (V _{out} = +38 dBmV/ch., Worst Case)	CTB ₁₂₈	—	-69	-64	dBc	
Noise Figure	NF	50 MHz	—	—	5.5	dB
		860 MHz	—	6.0	7.0	
DC Current (V _{DC} = 24 V, T _C = 30°C)	I _{DC}	280	310	350	mA	

PACKAGE DIMENSIONS



- NOTES:
 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	—	1.775	—	45.08
B	—	1.085	—	27.56
C	—	0.840	—	21.34
D	0.018	0.022	0.46	0.56
E	0.465	0.510	11.81	12.95
F	0.300	0.325	7.62	8.25
G	0.100 BSC	—	2.54 BSC	—
J	0.156 BSC	—	3.96 BSC	—
K	0.315	0.355	8.00	8.50
L	1.00 BSC	—	25.40 BSC	—
N	0.165 BSC	—	4.19 BSC	—
P	0.100 BSC	—	2.54 BSC	—
Q	0.148	0.168	3.76	4.27
R	—	0.600	—	15.24
S	1.500 BSC	—	38.10 BSC	—
U	0.200 BSC	—	5.08 BSC	—
V	—	0.250	—	6.35
W	0.435	0.450	11.05	11.43
X	0.400 BSC	—	10.16 BSC	—
Y	0.152	0.163	3.85	4.15

- STYLE 1:
 PIN 1. RF INPUT
 2. GROUND
 3. GROUND
 4. DELETED
 5. VDC
 6. DELETED
 7. GROUND
 8. GROUND
 9. RF OUTPUT

CASE 714Y-03 ISSUE D

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