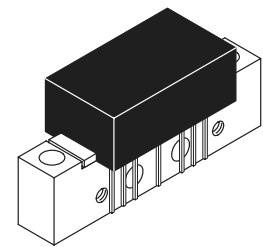


The RF Line
**77-Channel (550 MHz) CATV
Line Extender Amplifier**

MHW6272

- Specified for 60– and 77–Channel Performance
- Broadband Power Gain — @ f = 40–550 MHz
G_p = 27 dB (Typ)
- Broadband Noise Figure
NF = 6 dB (Typ) @ 550 MHz
- Superior Gain, Return Loss and DC Current Stability with Temperature
- All Gold Metallization
- 7 GHz f_T Ion-Implanted Transistors

**27 dB GAIN
550 MHz
77–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

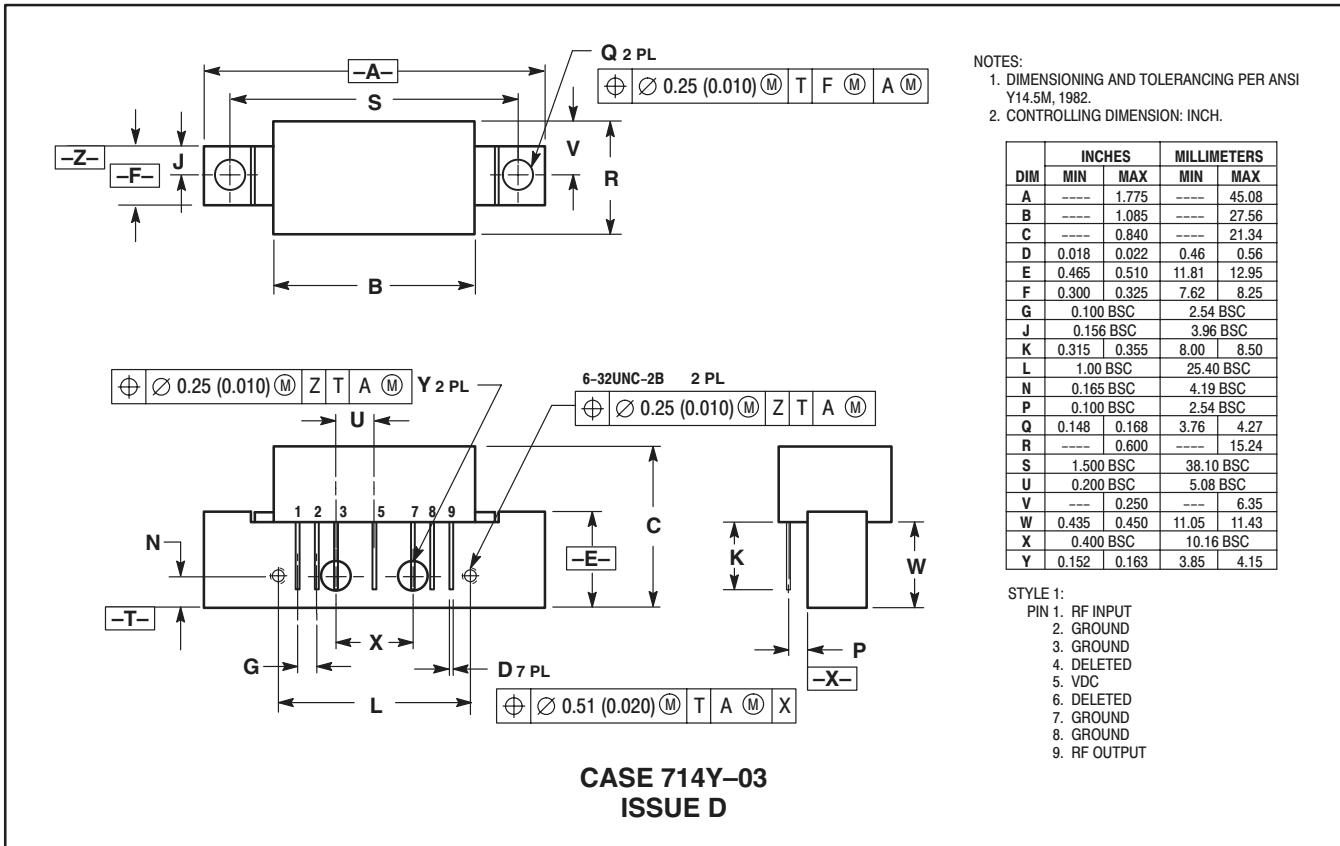
ELECTRICAL CHARACTERISTICS (V_{CC} = 24 Vdc, T_C = +30°C, 75 Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	550	MHz
Power Gain	G _p	26.2	27	27.8	dB
50 MHz		27	—	29.2	
Slope	S	0	1	2	dB
Gain Flatness (Peak To Valley)	—	—	0.4	0.8	dB
Return Loss — Input/Output (Z ₀ = 75 Ohms)	IRL/ORL	18	—	—	dB
40–450 MHz		16	—	—	
Second Order Intermodulation Distortion (V _{out} = +48 dBmV per ch., Ch 2, 13, R) (V _{out} = +46 dBmV per ch., Ch 2, M6, M15) (V _{out} = +46 dBmV per ch., Ch 2, M13, M22) (V _{out} = +44 dBmV per ch., Ch 2, M30, M39)	IMD	—	-80	—	dB
		—	-78	—	
		—	-76	—	
		—	-69	-64	
Cross Modulation Distortion @ Ch 2 (V _{out} = +46 dBmV per ch.)	XMD ₅₃	—	-63	—	dB
53–Channel FLAT	XMD ₆₀	—	-62	—	
(V _{out} = +44 dBmV per ch.)	XMD ₇₀	—	-61	—	
60–Channel FLAT 70–Channel FLAT 77–Channel FLAT	XMD ₇₇	—	-59	-57	
Composite Triple Beat (V _{out} = +46 dBmV per ch.)	TB ₅₃	—	-63	—	dB
53–Channel FLAT	TB ₆₀	—	-62	—	
(V _{out} = +44 dBmV per ch.)	TB ₇₀	—	-61	—	
60–Channel FLAT 70–Channel FLAT 77–Channel FLAT	TB ₇₇	—	-59	-57	
Noise Figure	NF	—	6.0	6.5	dB
DC Current	I _{DC}	—	310	340	mA

ARCHIVE INFORMATION

ARCHIVE INFORMATION

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

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