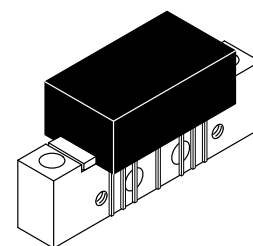


The RF Line 128-Channel (860 MHz) CATV Line Extender Amplifier

- 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

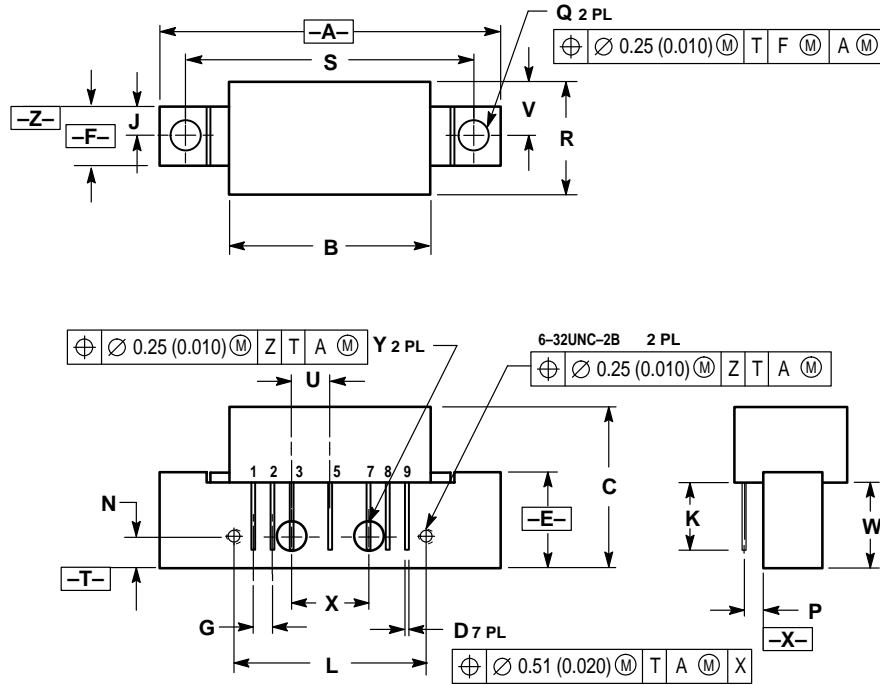
MAXIMUM RATINGS

| 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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How to reach us:

USA/EUROPE/Locations Not Listed: Motorola Literature Distribution;
 P.O. Box 5405, Denver, Colorado 80217. 1-303-675-2140 or 1-800-441-2447

JAPAN: Nippon Motorola Ltd.: SPD, Strategic Planning Office, 141,
 4-32-1 Nishi-Gotanda, Shagawa-ku, Tokyo, Japan. 03-5487-8488

Customer Focus Center: 1-800-521-6274

Mfax™: RMFAX0@email.sps.mot.com – TOUCHTONE 1-602-244-6609
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ASIA/PACIFIC: Motorola Semiconductors H.K. Ltd.; 8B Tai Ping Industrial Park,
 51 Ting Kok Road, Tai Po, N.T., Hong Kong. 852-26629298

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