



CATV Amplifier Module

Features

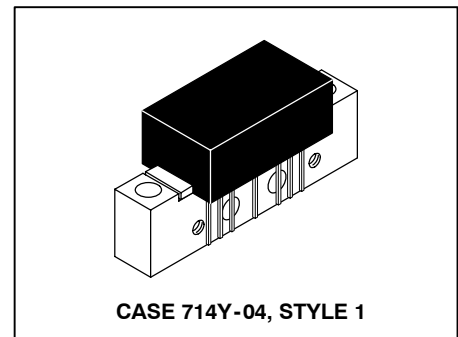
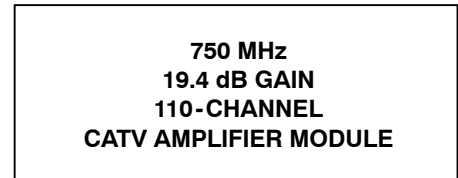
- Specified for 77- and 110-Channel Loading
- Excellent Distortion Performance
- Silicon Bipolar Transistor Technology
- Unconditionally Stable Under All Load Conditions

Applications

- CATV Systems Operating in the 40 to 750 MHz Frequency Range
- Output Stage Amplifier in Optical Nodes, Line Extenders and Trunk Distribution Amplifiers for CATV Systems
- Driver Amplifier in Linear General Purpose Applications

Description

- 24 Vdc Supply, 40 to 750 MHz, CATV Forward Power Doubler Amplifier Module
- Replaced MHW7185C. There are no form, fit or function changes with this part replacement.
- RoHS Compliant



LIFETIME BUY

LAST SHIP 01 MAR 08
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Table 1. Maximum Ratings

| Rating | Symbol | Value | Unit |
|----------------------------------|-----------|-------------|------|
| RF Voltage Input (Single Tone) | V_{in} | +70 | 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 |

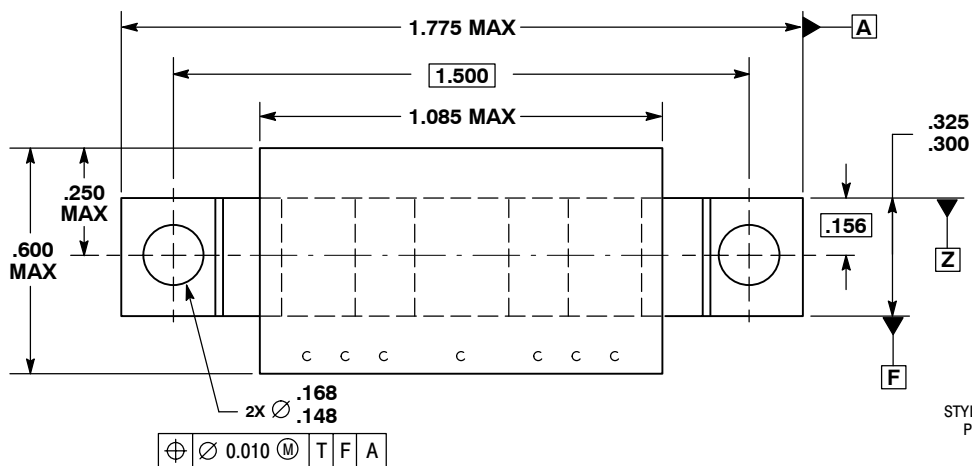
Table 2. Electrical Characteristics ($V_{CC} = 24$ Vdc, $T_C = +30^\circ\text{C}$, 75 Ω system unless otherwise noted)

| Characteristic | Symbol | Min | Typ | Max | Unit |
|--|---------------------------|------------|--------------|------------|--------------|
| Frequency Range | BW | 40 | — | 750 | MHz |
| Power Gain | G_p | 18.3 19 | 18.8 19.4 | 19.3 20 | dB |
| Slope | S | 0 | 0.4 | 1.0 | dB |
| Gain Flatness (40 - 750 MHz, Peak to Valley) | G_F | — | 0.3 | 0.6 | dB |
| Return Loss — Input/Output ($Z_o = 75$ Ohms) | IRL/ORL | 19 — | — — | — 0.006 | dB dB/MHz |
| Composite Second Order ($V_{out} = +44$ dBmV/ch., Worst Case) | CSO_{110} CSO_{77} | — — | -72 -80 | -64 -68 | dBc |
| Cross Modulation Distortion @ Ch 2 ($V_{out} = +44$ dBmV/ch., FM = 55 MHz) | XMD_{110} XMD_{77} | — — | -66 -70 | -63 -68 | dBc |

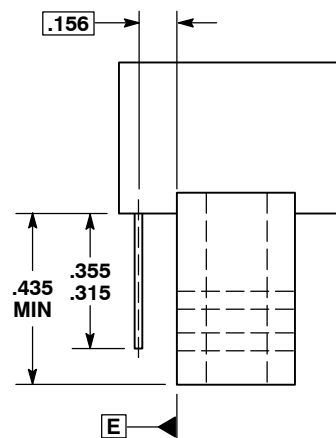
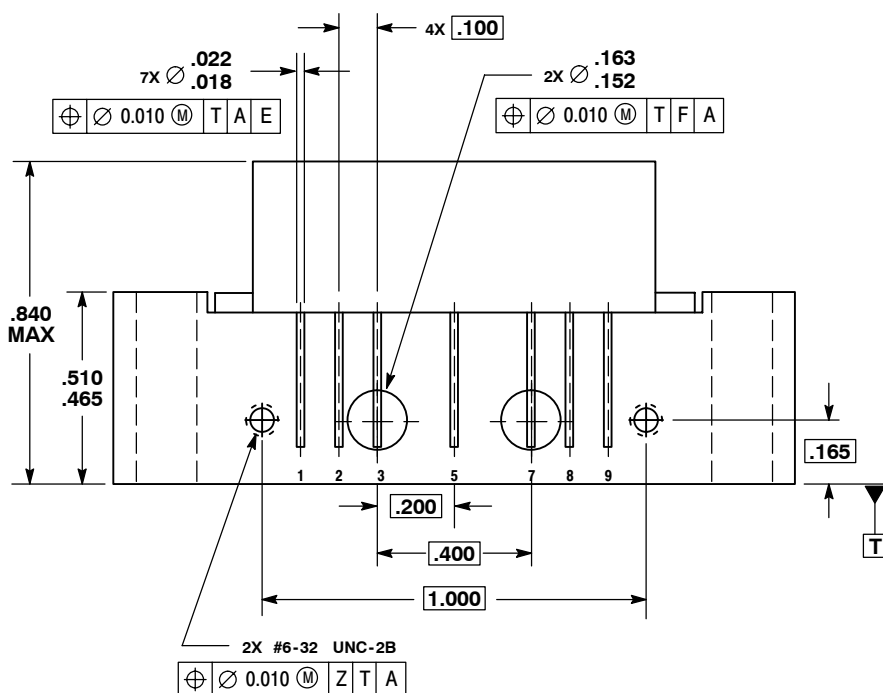
Table 2. Electrical Characteristics ($V_{CC} = 24$ Vdc, $T_C = +30^\circ\text{C}$, $75\ \Omega$ system unless otherwise noted) (continued)

| Characteristic | | Symbol | Min | Typ | Max | Unit |
|--|------------------|-------------|-----|-----|-----|------|
| Composite Triple Beat ($V_{out} = +44$ dBmV/ch., Worst Case) | 110-Channel FLAT | CTB_{110} | — | -64 | -62 | dBc |
| | 77-Channel FLAT | CTB_{77} | — | -71 | -69 | |
| Noise Figure | 50 MHz | NF | — | 5.0 | 6.0 | dB |
| | 550 MHz | | — | 5.8 | — | |
| | 750 MHz | | — | 6.2 | 7.5 | |
| DC Current ($V_{DC} = 24$ V, $T_C = 30^\circ\text{C}$) | | I_{DC} | 365 | 400 | 435 | mA |

PACKAGE DIMENSIONS



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



NOTES:
1. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: INCH.

CASE 714Y-04
ISSUE H

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