

TIBA-30-1200 DOCSIS 3.1 Compatible 2 Way Broadband Distribution Amplifier

TIBA-' \$1200 Two Way Indoor Broadband Amplifier 1.2 GHz with GaAs-Hybrid / Power Doubling Technology, ' ' dB Gain

Features

- 54-1220 MHz forward path, 5-42 MHz reverse (5-55 / 102-1220 & 5-204 / 258-1220 MHz options)
- 33 dB forward gain, 24 dB reverse
- Plug-in attenuators and equalizers
- GaAs power doubling technology (forward)
- Separate UL listed universal power supply
- Extruded aluminum housing with heat sink for optimum heat dissipation
- Includes TIBA PEQ Pad & EQ Kit



The Toner TIBA-30-1200 RF distribution amplifier is the latest addition to the Toner line of amplifiers designed for systems out to 1220 MHz such as those using expanded DOCSIS 3.1 frequencies. The TIBA amp features high performance GaAs-Hybrid silicone which provides better performance and better distortion characteristics than older PushPull and PHD type amplifiers. The amplifier is supplied with standard 5 - 42 / 54 - 1220 MHz diplex filters but has optional 5-85 / 102-1220 or 5-204 / 258-1220 MHz diplex filters available. It has a forward gain of 33 dB and a reverse gain of 24 dB. The amplifier features a plug-in forward attenuator and plug-in forward equalizer. Setup of the amplifier is with plug-in attenuator pads and equalizers in the input, midstage and output for precise settings. The reverse path has both input and output plug-in attenuator pads as well.

The TIBA is built in an extruded aluminum housing that is designed for heat dissipation as well as RFI. The cover is removable for access to the pads and equalizers. Power is with a UL listed plug in switched mode transformer 100-240 VAC that is supplied with US, British, and European plugs.

TIBA-30-1200 DOCSIS 3.1 Compatible 2 Way Broadband Distribution Amplifier

SPECIFICATIONS

| Parameter | Notes | Forward | | Reverse | | Units |
|---|--|--|----------|--------------------------|------|----------|
| | | 54-1218 | 102-1218 | 5-42 | 5-85 | |
| Bandwidth | (1) | 54-1218 | 102-1218 | 5-42 | 5-85 | MHz |
| Technology | | GaAs Power Doubler Hybrid | | GaAs pHEMT | | |
| Average Full Gain | | 33 | | 25 | | dB |
| Return Loss, IN/OUT | | -16 | | -16 | | dB |
| Test Points, Frw IN/Rev OUT | bidirectional | -30 | | -30 | | dB |
| Test Points, Frw OUT/Rev IN | bidirectional | -30 | | -30 | | dB |
| Input Gain Control | JXP plug-in (2) | 0 to 20 dB in 2 dB steps | | 0 to 18 dB in 2 dB steps | | dB |
| Second Stage Gain Control | JXP plug-in (2) | 0 to 10 dB in 2 dB steps | | 0 to 20 dB in 2 dB steps | | dB |
| Input Slope Control | JXP plug-in (2) | 0 to 20 dB in 2 dB steps | | N/A | | dB |
| Second Stage Slope Control | JXP plug-in (2),(3) | 0 to 10 dB in 2 dB steps | | 0 to 10 dB in 2 dB steps | | dB |
| Forward Distortions: | 53 dBmV output (NTSC 74 analog channels, 109.25 to 547.25 MHz, +75 SC-QAM-256 digital channels, 555 to 999 MHz -6dB offset relative to the analog carrier.) | | | | | |
| CTB | | -60 | | N/A | | dBc |
| CSO | | -67 | | N/A | | dBc |
| Crossmodulation (XMOD) | | 62 | | N/A | | dBc |
| MER | | 40 | | N/A | | dB |
| Forward Distortions: | 44/56 dBmV output (NTSC 74 analog channels, 109.25 to 547.25 MHz, +75 SC-QAM-256 digital channels, 555 to 999 MHz -6dB offset relative to the analog carrier.) | | | | | |
| CTB | | -60 | | N/A | | dBc |
| CSO | | -65 | | N/A | | dBc |
| Crossmodulation (XMOD) | | 62 | | N/A | | dBc |
| MER | | 40 | | N/A | | dB |
| Reverse Distortions: | 52 dBmV flat output, 2 ch according to ANSI/SCTE1152006 | | | | | |
| DTO on 7MHz | | N/A | | -70 | | dBc |
| DSO on 6MHz | | N/A | | -75 | | dBc |
| Crossmodulation (XMOD) | | N/A | | -66 | | dBc |
| Noise Figure | with 0 dB jumpers | 6 | | 6 | | dB |
| MAX RF Input Level (per channel, w/o using fixed input attenuator) | 20 dBmV (NTSC 74 analog channels, +75 SC-QAM-256 digital channels, -6dB offset relative to the analog carrier.) | | | | | |
| Input/Output Connections | | F Type | | | | |
| Hum Modulation | | -70 | | | | dBc |
| Surge Withstand | | IEEE C62.41-Cat. A3(6KV, 200A) | | | | |
| Powering | | 15 | | | | Watt |
| Power Requirement | | Wall Power Transformer, Input = 90-240VAC, 50-60Hz, 1A | | | | |
| Operating Temperature Range | | -4F to +130 | | | | degF |
| Weight | | 3.3 (1.5) | | | | lbs (kg) |
| Dimensions (L x W x H) | | 195 x 160 x 79 (7-3/4 x 6-1/3 x 3) | | | | mm (in) |

ORDERING INFORMATION

Plug-In Accessories

| Model | Description |
|---------|---|
| JXP-* | Attenuator Pads 1 GHz 0 to 20 dB in 1 dB Steps |
| JXPEQ-* | Forward Equalizer 1 GHz 0 to 20 dB in 1 dB Steps |

Diplexer Kits

| Model | Description |
|-------------|----------------------------------|
| TDATIBA-42 | 5-42/54-1220 Diplex Filter Set |
| TDATIBA-85 | 5-85/102-1220 Diplex Filter Set |
| TDATIBA-204 | 5-204/258-1220 Diplex Filter Set |