

## TIBA-40-1220 DOCSIS 3.1 Compatible 2 Way Broadband Distribution Amplifier

### TIBA-40-1220 Two Way Indoor Broadband Amplifier 1.2 GHz with GaAs-Hybrid / Power Doubling Technology, 40 dB Gain

#### Features

- 54-1220 MHz forward path, 5-42 MHz reverse (5-85 / 102-1220 & 5-204 / 258 -1220 MHz model options)
- 40 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
- Optional Toner JXP Pad Kit Available Contains 10 Each 1, 3, 6, 9, 12, 16, 18 & 20 dB
- Optional Toner JXP EQ Kit Available Contains 1 Each 2, 6, 10, 15 & 18 dB



The Toner TIBA-40-1220 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 40 dB and a reverse gain of 24 dB. Setup of the amplifier is done with JXP series pads and equalizer. 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.

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## SPECIFICATIONS

Parameter	Notes	Forward		Reverse		Units
Bandwidth	(1)	54-1218	102-1218	5-42	5-85	MHz
Technology		GaAs Power Doubler Hybrid		GaAs pHEMT		
Average Full Gain		40		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:	52 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)		61		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		-65		N/A		dBc
CSO		-70		N/A		dBc
Crossmodulation (XMOD)		62		N/A		dBc
MER		40		N/A		dB
Reverse Distortions:	52 dBmV flat output, 2 ch according to ANSISCTE1152006					
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 1.2 GHz 0 to 20 dB in 1 dB Steps
JXPEQ-*	Forward Equalizer 1.2 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