

1.2 GHz, 2 Way, GaAs Power Doubling Headend Amplifier, (40 dB Gain)



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This rack mount amplifier is specifically designed as a headend amplifier to be used in analog or digital headends after combining of the various signals. The HEA-40D31 features a single output on the rear which incorporates both the forward path output and the reverse path input. The HEA-40 then features an internal diplex filter which provides a separate forward input connector and reverse output connector. The headend amplifier features midstage gain and slope controls as well as plug in pads and equalizers on the forward path. The reverse path has a separate gain control along with an input plug in attenuator (pad). The rackmount amplifier also has a passive/active reverse feature which is user selected.

FEATURES

- 1.2 GHz forward bandwidth
- GaAs/GaN power doubler for high output levels and low distortions
- 40 dB gain with 52 dBmV output level (0 slope)
- Active push-pull GaAs Phemt reverse with user selectable active / passive operation
- Plug in pads and equalizers along with gain and slope control
- 1 RU rack mount chassis
- UL and CE listed external power transformer (110 / 230 VAC)
- Surge protection on all ports
- -30 dB test ports on both input and output
- Uses standard JXP pads for attenuators & equalizers



HEA-40-D31 1.2 GHz Rackmount Amplifier

SPECIFICATIONS

Parameter	Notes	Forward		Reverse		Units
Bandwidth		54 - 1218	105 - 1218	5 - 42	5 - 85	MHz
Technology		GaAs/GaN Power Doubler Hybrid		GaAs Phemt, Push Pull		
Gain		40	40	24 / -2 Switchable	24 / -2 Switchable	dB
Return Loss		16		16		dB
Test Points, Frw IN/Rev OUT	bidirectional	-30 +/- 1.5		-30 +/- 1.5		dB
Test Points, Frw OUT/Rev IN	bidirectional	-30 +/- 1.5		-30 +/- 1.5		dB
Input Gain Control	JXP plug-in (1)	0 to 20dB in 2dB steps		0 to 18dB in 2dB steps		
Second Stage Gain Control	JXP plug-in (1)	0 to 14dB in 2dB steps		0 to 20dB in 2dB steps		
Input Slope Control	JXP plug-in (2)	0 to 18dB in 1.5dB steps		N/A		
Second Stage Slope Control	JXP plug-in (2)	0 to 12dB in 1.5dB steps		N/A		
Forward Distortions:	52 dBmV output level Channel loading: 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		-70		N/A		dBc
MER		40		N/A		dB
Cross Modulation (XMOD)		-63		-58		
Reverse Distortions:	52dBmV flat output, 2-ch according to ANSI/SCTE 115 2006					
DTO on 7MHz		N/A		-68		dBc
DSO on 6MHz		N/A		-65		dBc
Noise Figure	with 0 dB jumpers	6		6		dB
MAX RF Input Level (per channel, w/o using fixed input attenuator)	20 dBmV @ 74 analog channels, 75 SC-QAM-256 digital channels, -6dB offset relative to the analog carrier.					dBmV
Input/Output Connections		F Type				
Hum Modulation		-70				dBc
Surge Withstand	IEEE C62.41 Cat. A3 (6KV, 200A)					
Power Consumption		18				Watt
Power Requirement	Wall Power Transformer, Input = 90-240VAC , 50-60Hz, 1A					
Operating Temperature Range		-4 to +130				degF
Weight		4.85 / 2.2				lbs / kg
Dimensions (L x W x H)		19 x 9 x 1.75				inch

1. Universal 1" JXP style pads. 0dB jumper pads are factory default.
2. Universal 1" JXP plug-in equalizer. 0dB jumper pads are factory default.

Models HEA-40-D3142
HEA-40-D3185