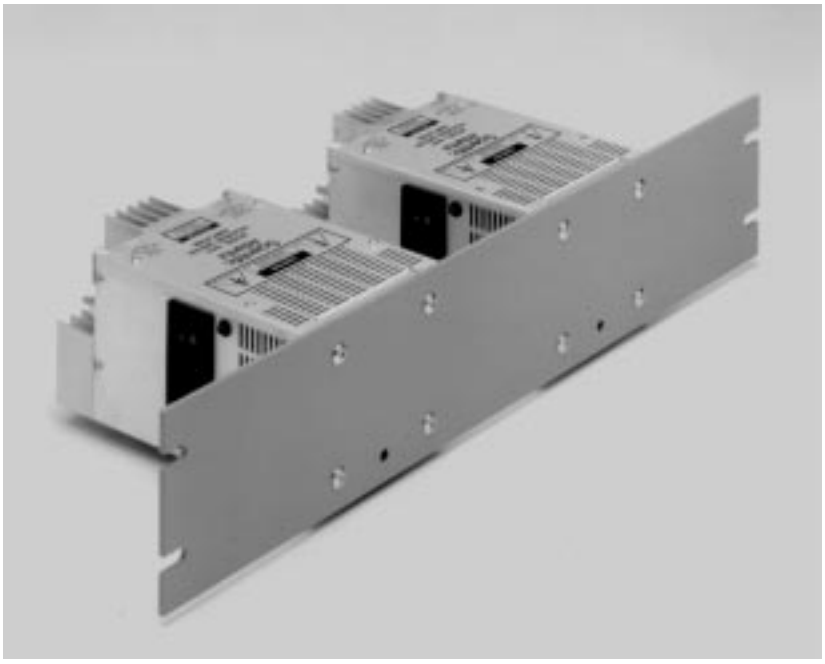
Optoelectronics

Model 6453-FF 46 - 750 MHz Feedforward Headend Driver Amplifier (HEDA)



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DESCRIPTION

The Model 6453-FF Headend Driver Amplifier is an indoor product designed for use in the headend or hub. It is housed in a compact (3.25 in. x 4.0 in. x 6.5 in.) module that can be attached to a pre-drilled P-3 panel for mounting in a standard headend rack. An optional pre-drilled panel is available that allows access to test points from the front of the headend rack. The feedforward gain block provides exceptional distortion performance at operational output levels.

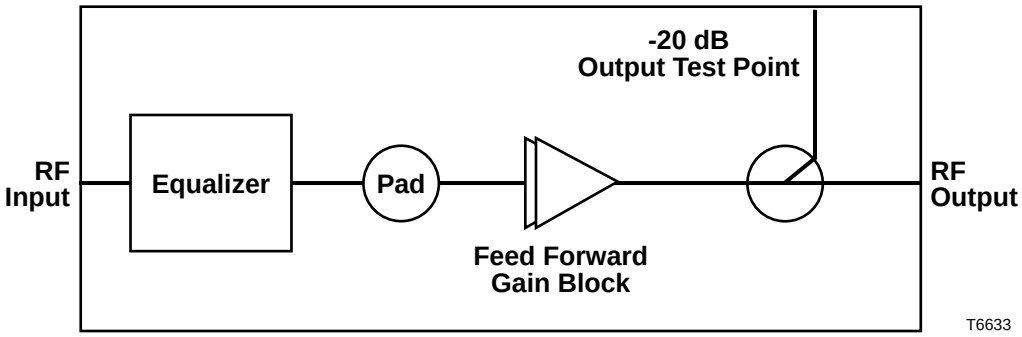
The 46-750 MHz pass band retains network flexibility for the future. The 6453-FF can be powered with most standard AC voltages and can be configured to utilize 24 V DC powering (jumper selected).

CE

FEATURES

- Compact size saves precious headend space
- Rack mountable (optional P-3 panel kit)
- 46-750 MHz pass band
- 21.0 dB minimum gain
- Output directional coupler RF test point (-20 dB)
- Plug-in pad and equalizer
- Power switch with integrated fuse
- Two models with various power requirements provide maximum flexibility
  - 115 V AC
  - 230 V AC
  - 24 V DC, 725 mA (optional powering for all models)

MODEL 6453-FF 46-750 MHZ HEADEND DRIVER AMPLIFIER (HEDA)



SPECIFICATIONS

Electrical

RF Bandwidth
46 -750 MHz
Frequency Response
±0.5 dB
Return Loss
15.5 dB (min)
Noise Figure (max)
9.7 dB @ 46 MHz
10.8 dB @ 550 MHz
13.1 dB @ 750 MHz
Module Gain [4]
21.0 (min)

Distortions [1,2] (typical)	110 Analog Ch.
Composite Triple Beat (CTB)	65.0 dB
Composite Second Order (CSO)	71.0 dB
Cross Modulation (X-MOD)	60.0 dB
Distortions [1,2] (typical)	78 Analog Ch.
Composite Triple Beat (CTB)	73.0 dB
Composite Second Order (CSO)	72.0 dB
Cross Modulation (X-MOD)	73.0 dB

RF Test Point
-20 dB to ±1.0 dB

Power Requirements
115 V AC, 0.30 A (Model 6453J)
230 V AC, 0.20 A (Model 6453I)
+24 V DC, 725 mA
(All models, 24 V DC operation is jumper selected)
Power Supply
24 V DC (nominal)
Operating Temperature Range [3]
0°C to 50°C
(32°F to 122°F)

Mechanical

Dimensions
3.25 in .H x 4.0 in. W x 6.5 in. D
(8.3 cm x 10.2 cm x 16.5 cm)
Weight
4 lbs, 10 oz. (2.1 kg)

Notes:
1. Distortions and Noise Figure measured at 25°C (77°F) at 44 dBmV flat output level.
2. Typical operating level is 33 dBmV to 38 dBmV.
3. Recommended for use only in non-condensing environments.
4. With 1.0 dB pad to account for the insertion loss of an equalizer.

Specifications shown reflect typical equipment performance at stated reference levels in the recommended operating configuration. Specifications are based on measurements made in accordance with NCTA Practices for Measurements on Cable Television Systems using standard frequency assignments and are referenced to 20°C (68°F).

MODEL 6453-FF 46-750 MHZ HEADEND DRIVER AMPLIFIER (HEDA)

ORDERING INFORMATION

Model	Part Number
6453-FF (115 V AC)	566082
6453-FF (230 V AC)	573020

Required Accessories

- Plug-in pad, 1 required.

Value	Part Number	Value	Part Number
0.0	279500	11.0	279511
0.5	565231	11.5	565242
1.0	279501	12.0	279512
1.5	565232	12.5	565243
2.0	279502	13.0	279513
2.5	565233	13.5	565244
3.0	279503	14.0	504151
3.5	565234	14.5	565245
4.0	279504	15.0	504152
4.5	565235	15.5	565246
5.0	279505	16.0	504153
5.5	565236	16.5	565247
6.0	279506	17.0	504154
6.5	565237	17.5	565248
7.0	279507	18.0	504155
7.5	565238	18.5	565249
8.0	279508	19.0	504156
8.5	565239	19.5	565250
9.0	279509	20.0	504157
9.5	565240	20.5	565251
10.0	279510	75	279524
10.5	565241		

- Plug-in Forward Equalizer, 1 required. Equalizers correct for down tilt and are available in 1.5 dB steps from 0 dB to 28.5 dB. Model EQ750-* (* denotes equalizer value), specify value.

Value	Part Number	Value	Part Number
1.5	501220	16.5	501230
3.0	501221	18.0	501231
4.5	501222	19.5	501232
6.0	501223	21.0	501233
7.5	501224	22.5	501234
9.0	501225	24.0	540016
10.5	501226	25.5	540017
12.0	501227	27.0	540018
13.5	501228	28.5	540019
15.0	501229		

Optional Accessories

Item	Part Number
Pre-drilled P-3 panel with front access test points for rack mounting, includes cable assemblies and connectors	502417
Pre-drilled P-3 panel without test point access	381773
24 V DC power cable, 10 feet	467080

Specifications and product availability are subject to change without notice.

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