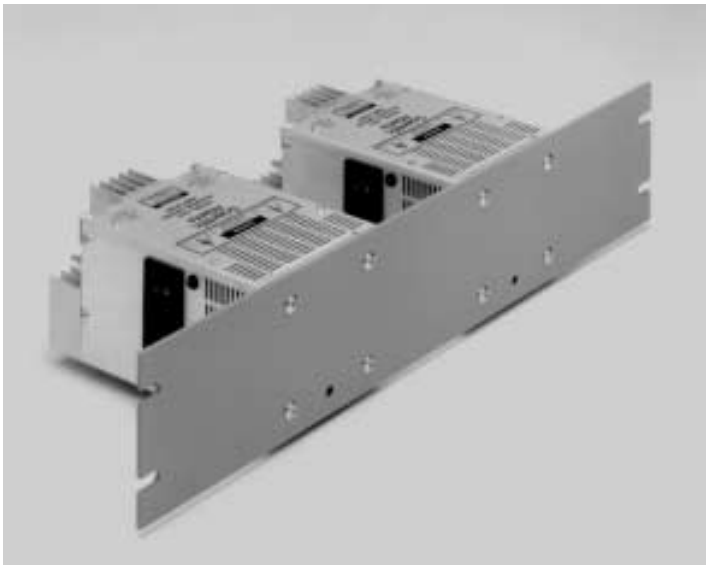
Model 6451 (46-550 MHz) Feedforward Headend Driver Amplifier



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DESCRIPTION

The Model 6451 Headend Driver Amplifier is an indoor device for use in the headend or hub. The Model 6451 features a feedforward gain block at 550 MHz. It is housed in a compact (3.25 in. x 4.00 in. x 6.50 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 Model 6451 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)
- 46-550 MHz pass band
- 21.0 dB minimum full gain
- Output directional coupler RF test point
- Plug-in pad and equalizer
- Power switch with integrated fuse
- Five models with various power requirements provide maximum flexibility
  - 100 V AC
  - 120 V AC
  - 220 V AC
  - 230 V AC
  - 240 V AC
  - 24 V DC, 750 mA (optional powering for all models)

Model 6451 Feedforward Headend Driver Amplifier – 46-550 MHz

SPECIFICATIONS

Power Requirements
- 100 V AC, 0.20 A (Model 6451J)
- 120 V AC, 0.20 A (Model 6451)
- 220 V AC, 0.10 A (Model 6451E)
- 230 V AC, 0.10 A (Model 6451I)
- 240 V AC, 0.10 A (Model 6451B)
- +24 V DC, 450 mA
- (24 V DC operation is jumper selected)

Power Supply
- 24 V DC (nominal)

RF Test Points
- -20 dB ±1.0 dB

Dimensions
- 3.25 in. x 4.0 in. x 6.5 in.
- (8.25 cm x 10.16 cm x 16.51 cm)

Operating Temperature (Ambient)
- 32°F to 120°F
- (0°C to 50°C)

Weight
- 4 lbs 10 oz (2.1 kg)

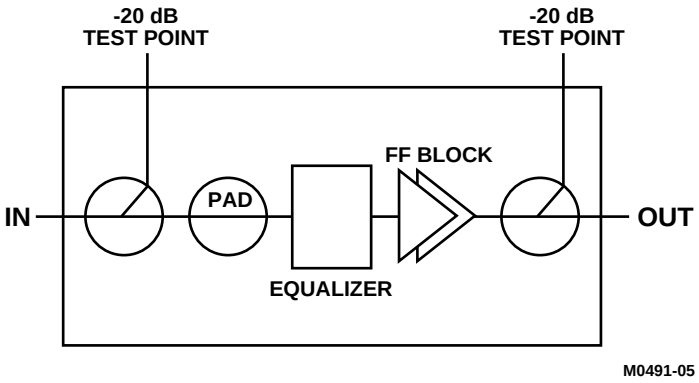
REQUIRED ACCESSORIES

- Plug-in pad, 1 required. Available in 0.5 dB steps from 0 dB to 20.5 dB. Model PP-* (* denotes pad value), specify value.
- Forward Equalizer, 1 required. Available in 1.5 dB steps from 0 dB to 34.5 dB. Model EQ550-* (* denotes equalizer value), specify value. (Units ship with 0 dB equalizer installed.)

OPTIONAL ACCESSORIES

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

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 68°F (20°C).



PERFORMANCE SPECIFICATIONS

Bandwidth	46-550 MHz
Gain (minimum)	21.5 dB
Flatness (frequency response)	± 0.4 dB
Return Loss	16 dB (min)
Noise Figure[3] (typical with 0dB pad & 0 dB equalizer)	10 dB

78 analog channels

Distortions[1,2] (Typical)	
Composite Triple Beat (CTB)	74 dB
Composite Second Order (CSO)	70 dB
Cross Modulation (X-MOD)	73 dB

ORDERING INFORMATION

Input Voltage	Model Number	Part Number
100 V AC	6451J	536848
120 V AC	6451	500200
220 V AC	6451E	500201
230 V AC	6451I	509782
240 V AC	6451B	500202

NOTE: Order by part number

Notes:
1. Distortions measured at 20°C at 44 dBmV, zero tilt
2. Typical operating level of 38-41 dBmV, zero tilt
3. Input of at least +17 dBmV suggested to minimize noise contribution.

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