Z-Distribution FBR
Product Specifications

Product Description
The 54 to 860 MHz Z-Distribution FBR, RF video hub (not a switch), distributes 134 NTSC/6 MHz channels or hundreds of HD/SD channels over a structured, “568” Category cable system. The video hub automatically splits, amplifies, slopes, and adjusts input and output signals to maintain level integrity. The back-bone cable can either single-mode fiber (angle polished) and/or standard coax cascaded to other hubs in a star topology. Hubs are bi-directional, and are capable of remote broadcasts, and handling return channel information, video-on-demand, using DOCSIS or FSK.

The active hub can auto-adjust input signals ±3dB in both slope and level to minimize signal variations from the service provider.

Fiber Option
Z-Band recommends using the “Z-Band Light” video hubs (Z 2400-F or Z 1200-F) with a built-in fiber optics receiver for all uni-directional fiber installations. If it is used, then the fiber input signal will be automatically adjusted to the appropriate level. Contact Z-Band for bi-directional fiber requirements.
**Z-Distribution FBR**

**12 & 24 Port 2U Video Hub Series**

<table>
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<tr>
<th>Model</th>
<th>24 Port Video Hub</th>
<th>12 Port Video Hub</th>
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<tr>
<td><strong>Z 2400</strong></td>
<td><strong>Z 2400-F</strong></td>
<td><strong>Z 1200</strong></td>
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### Physical Description

- **Weight:** Approximately 6.5 lbs
- **Size:** 12” L x 19” W x 3.5” H standard size enclosure with mounting ears
- Mounts in standard 19” rack / 2U High
- **Four Status Indicator Lights:** master (red), slave (green), power status (red/green), and tone status (red/green)
- **Front Panel:** 2 rows of shielded RJ-45 Jacks (24 per row and 12 per row versions)
- **Rear Panel:** 19 F-Connectors; 8 Outbound, 8 Inbound, 1 Cascade In, 1 Cascade Out, 1 CATV In, and 1 mini USB connector
  - 1 single-mode fiber connector (optional)
  - UTP outbound RF video on pins 7 & 8, return RF on pins 4 & 5, and shared sheath with 10/100 Ethernet on pins 1, 2, 3, & 6

### Electrical Power

- **Input Voltage:** 90-264 VAC auto sensing
- **Input Current:** 1.8A @ 100 VAC (2.0 A Fuse)
- **Input Frequency:** 47 Hz to 63 Hz
- **DC Power:** Maximum125 Watts

### Electrical Radio Frequency

- **Bandwidth:**
  - Forward: 54 MHz to 860 MHz using CAT 6 Cable (Call Z-Band for higher frequencies)
  - DOCSIS/FSK modem/T-Channel Video Return Compatable: 5 MHz to 42 MHz
  - Recommended for Return Channel: IP generated and modulated to an available channel
- **Pilot Tone:**
  - Frequency: 240 MHz
  - Output Level: 23 dBmV on all 8 coax Outbound ports on rear panel
  - Automatic Gain Control (AGC)
  - Automatic Slope Control (ASC)

### System Performance

- **C/N:** greater than 43 dB
- **CTB:** greater than 50 dB (134 channel loading)
- **CSO:** greater than 51dB (134 channel loading)
- **MER:** greater than 32 dB
- **Auto Level:** System can accommodate input signal of ±3dB level
- **Slope:** can vary ±3 dB from flat

### Recommended

- **CATV Input:** 23 dBmV flat for analog, 23 dBmV analog and 17 dBmV digital mixed, and 20 dBmV for digital only
- **Standard reverse up-stream path accommodates T7-T14 channels**
- **Fiber Input:** Single-Mode -1 dBm to -4 dBm

### Environment

- **Operating Temperature:** 0 to 55° C
- **Relative Humidity:** 5 to 95%
- **Storage Temperature:** -40 to 70° C
- **BTU/HR:** Approx. 400

### Agency Standards

- UL/CSA Listed, FCC Part 15, Subpart B Compliant, ANSI/TIA-568-C Series