

## FDS-1004

### Active Forward Distribution System

**MCR-H/E's FDS-1004** is an active Forward Distribution System for modern headends and hubs. It is a highly integrated, compact and reliable unit that allows for complex combining and introduction of new services without disrupting currently active ones. It has one main ('System')



input for all common channels and 44 secondary (Insertion) inputs grouped in three different levels allowing for broad-, mid-, and narrow-casting. The unit has eight independent outputs, which can feed optical transmitters or other FDSs in hierarchical designs for systems with greater complexity. Extremely high isolation between different groupings allows for frequency reuse with different content for different outputs. This fully modular unit is packed in a 2RU high frame and includes redundant power supply, which eliminates the need for any additional external power supplies and these together result in a significant savings of a rack space taking only half of space required by products from other leading manufacturers. Test points for all outputs and 'System' input

are provided on the front panel. Two Loop-throughs on the back panel increase functionality by allowing insertion of such devices as channel deletion or other type filters or to further increase the number of secondary inputs.



Excellent electrical parameters such as flat frequency response from any input to any corresponding output, superior input and output return loss, low distortion and noise make this unit perfect for deployment of such services as VOD, VOIP, Gaming applications, Internet and others.

#### Product Features

- Very compact, taking only 2RU of rack space;
- Built in redundant power supply, no external or proprietary power sources required;
- Fully modular construction;
- 45 total inputs, 8 independent outputs;
- Excellent electrical performance: frequency response, return loss and distortion;
- Highest isolation between groupings allows for frequency reuse.

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### Technical Specifications

PARAMETER	STANDARD MODEL	OPTION 1 MODEL*
Bandwidth, MHz	50 - 870	
Insertion Loss System Input, dB	0.5±0.5 max	1±0.5 max
Insertion Loss 'Tx' Inputs, dB	21.5±0.5	16.5±0.5
Insertion Loss All Other Inputs, dB	21.5±0.5	21.5±0.5
Frequency Response, dB System Input Insertion Inputs	± 0.75 max ± 0.5 max	
Number of Input/Output Ports	45/8	
Return Loss, dB Outputs  All Other Ports	20 min 24 typ	18 min 22 typ
Isolation For the Purpose Of Frequency Reuse (Actual C/I ratio), dB	60 min 65 to 70 typ	
Isolation Between 'Tx' Inputs of the Same Group, dB	30 min	27 min
Isolation Between Any Other Inputs of the Same Group, dB	30 min	
Recommended Input Levels, dBmV: System Input 'Tx' Inputs All Other Insertion Inputs	18 39                      34 39	
Distortion Parameters, dBc** CTB CSO XMOD	-96 -82 -93	
Powering	110-220 VAC, 50-60 Hz, 27 W	
Dimensions (Inches)	3.5 H x 19 W x 12 D	
Control Output DB-9	Relay Contact for each Active Module	

\* FDS-1004 Option 1 Model has lower insertion loss 'Tx' - Output

\*\* Values assume nominal 'System' input level of 18dBmV with 112-channel loading flat

Specifications are subject to change without notice

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