

RF LINK™
RF INTEGRATOR® (ACTIVES)

APPLICATION

RF management is a critical element when planning the headend and hubs for future expansion of advanced services. It provides a flexible platform that reduces initial costs, thereby allowing modules to be added as new services are deployed.

Its modular design uses minimal rack space and can be upgraded easily. The RF Integrator solution enables critical components to be backed up, thereby creating a reliable network that is compact and reduces overall hardware requirements.

This platform allows active and passive modules to be configured in the same chassis for overall system efficiency.

BENEFITS

- Active/passive chassis
- Flexible configurations
- Expandable platform
- Efficient use of space
- Allows for easy installation
- Provides high performance
- Cost-effective design



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FEATURES

- Front loaded modules for easy swap out
- 3 RU (5.25") contains 16 modules and power supply
- Front panel test point
- Configurable for redundant amplifiers and power supplies – hot swappable
- Powering option from either ac or dc
- 24 V dc backup
- Status monitoring controls/monitors critical modules
- Precision BNC or F connectors
- 360° center conductor
- Front panel status indicator
- Front or projection mounting chassis

SPECIFICATIONS

	Reverse Amplifier ^{1,2}		Forward Amplifier	
Frequency (MHz)	5-10	10-75	45-870	
Gain (dB) (±1.0)	13, 20	13, 20	20	
Frequency Response (dB)	±0.25	±0.25	0.8	
Return Loss (Min.) (dB)	17	19	16	
Isolation (Min.) (dB)	45	45	25	
Output Reference Level (dBmV)	45	45	42	
Video Channel Loading (Channels)	4	4	110	
Composite Triple Beat (dBc)	-60	-60	-64	
Composite Second Order (dBc)	-55	-55	-60	
XMOD (dB)	n/a	n/a	-57	
Noise Figure (dB)	9	9	6	
Power (mA)	120	120	460	
Noise-to-Power Ratio ^{1,2} (dB)	>40	>40	n/a	

RF Switch (MHz)	5-200	200-550	550-870	870-1000
Impedance (dB)	75	75	75	75
Return Loss (dB)	18	18	18	16.5
Terminated Port Return Loss (dB)	18	18	18	16
Insertion Loss Including Tilt	0.8	1.0	1.8	2.0
Worst Case Flatness (100 MHz Span)	0.3	0.3	0.3	0.3
Port-to-Port Isolation (Min.) (dB)	60	60	55	52
Output Stability vs. Temp	0.3	0.3	0.3	0.3
Test Point Response	-20	-20	-20	-20
Supply Voltage (V dc) ¹	24	24	24	24
Supply Current (mA)	50	50	50	50

Note 1: Input power range for 13 dB module= -72 to -32 dBmV per Hz

Note 2: Input power range for 20 dB module= -76 to -39 dBmV per Hz

Specifications are subject to change without notice.

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SPECIFICATIONS (cont.)

Power Supply Characteristics	ac	dc
Supply Voltage (V ac /V dc) ¹	90-264	36-72
Maximum Supply Current (amp)	2.2	2.2
Output Voltage (V dc)	24	24
Output Power (W)	65	65
Power Foldback	Protection	Protection
Efficiency @ Full Load	80%	80%

Physical

Operating Temperature °F (°C)	32 to 122 (0 to 50)
Relative Humidity (Min.-Max.) (Non condensing)	0-95%
Dimensions (H x W x D) in. (cm)	
Reverse Amplifier Weight lbs. (kg)	5.1 x 0.87 x 7 (12.95 x 2.21 x 17.78) 1.16 (.53)
Forward Amplifier Weight lbs. (kg)	5.1 x 1.74 x 7 (12.95 x 4.42 x 17.78) 1.66 (.75)
3 RU Chassis Weight lbs. (kg)	5.25 x 17 x 11.75 (13.33 x 43.16 x 29.84) 9.40 (4.26)

ORDERING INFORMATION

Description	Model #	Part #
13 dB Reverse Amplifier with F Connector	RFM-RA-13-F	253414
20 dB Reverse Amplifier with F Connector	RFM-RA-20-F	253415
20 dB Forward Amplifier with F Connector ²	RFM-FA-20-F	253416
RF Switch with F Connector	RFM-RF-SW-F	253418

Note 1: 0% Tolerance

Note 2: Dual-width modules

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ORDERING INFORMATION (cont.)

Description	Model #	Part #
13 dB Reverse Amplifier with BNC Connector	RFM-RA-13-B	253440
20 dB Reverse Amplifier with BNC Connector	RFM-RA-20-B	253441
20 dB Forward Amplifier with BNC Connector ¹	RFM-FA-20-B	253442
RF Switch with BNC Connector	RFM-RF-SW-B	253444
3 RU Active/Passive Chassis for 19" Racks	RFM-3RU-19	253412
3 RU Active/Passive Chassis for 23" Racks	RFM-3RU-23	253425
Status Monitoring Interface Control Module	RFM-SMIC	253421
Power Supply 90/264 V ac ¹ (power cord not included)	RFM-PS-AC	253426
North American ac Power Cord NEMA 5-15 P (Male) to IEC 320-C13 (Female)	n/a	464210003
Universal ac Power Cord IEC 320-C14 (Male) to IEC 320-C13 (Female)	n/a	253482
Power Supply -48 V dc1	RFM-PS-DC	253427
Back Plane Power Input Module #1 RFM-BP-1	253422	
Back Plane Power Expansion Module #2 & 3	RFM-BP-2	253423
24 Volt Remote Power Cable	RFM-24V-PWR	253486
Accessories	Model #	Part #
Termination 75 ohms – F Type	RFM-PAD-75-F	253455
Attenuation Pads w/F connectors 3, 6, 8, 10, 12, 16, 20 dB	RFM-PAD-xx-F	253456-62
Termination 75 ohms – BNC Type	RFM-PAD-75-B	253449
Attenuation Pads w/BNC Type 3, 6, 10, 15, 20 dB	RFM-PAD-xx-B	253450-54
F Type Installation Tool – 12"	RFM-TL-12-F	253465
BNC Type Installation Tool – 12"	RFM-TL-12-B	253467
BNC Type Installation Tool – 12" Flex Shaft	RFM-TL-12F-B	253468
Instruction/Operation Manual	RFM-IO	253469
Blank Cover for 3 RU – Half-width	RFM-BC-3RU-SW	253448
Blank Cover for 3 RU – Full-width	RFM-BC-3RU-DW	253481
Digicon 59Q BNC Connector	RFM-BNC-59Q	253475
Digicon BNC Connector Tool	RFM-TL-DIG	253476
Cable Stripper for 59Q Cable	RFM-CS-59Q	253483
Single CHT Wiring Harness	RFM-WH-SGL	253477
Dual CHT Wiring Harness	RFM-WH-DUL	253478
Single/Dual Combo CHT Wiring Harness	RFM-WH-SDC	253479

Note 1: Full-width modules