

FFE-* -100*/RP-R

1 GHz Feederline Equalizer

FEATURES

- Support expanded forward path bandwidth to 1003 MHz
- Expand return bandwidth with optional 85 MHz return
- Preconfigured with 8 dB or 12 dB of forward equalization
- Maintain existing install base with housing compatibility to all ARRIS SSP and FFE line passive products
- Easily adjust equalization with pluggable standard ARRIS STARLINE SFE forward equalizers
- Improve system performance with pluggable JXP return path attenuation



PRODUCT OVERVIEW

The ARRIS FFE Forward Feederline Equalizer is designed to compensate for feeder cable slope via 1 GHz pluggable cable equalizers. This 1 GHz FFE product includes the option of adding attenuation to the return path that enables improved signal-to-noise performance and tighter gain variances. The equalizer circuit is contained in the same type of housing as the SSP splitters, directional couplers, and power inserters.

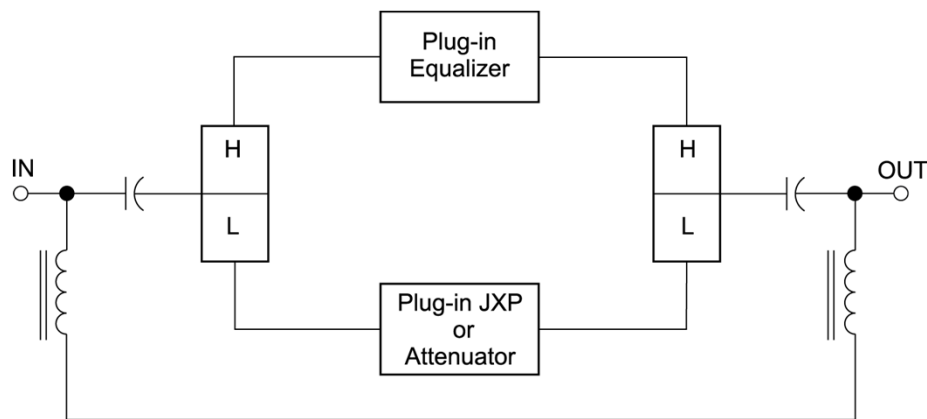
The FFE-100 is readily shipped preconfigured with either 8 dB or 12 dB of forward equalization. Other plug-in equalizer values can be achieved by purchasing any available dB value of the 1 GHz ARRIS STARLINE SFE plug-in equalizer purchased with the FFE-HSG in the appropriate frequency split configuration for the network. The FFE supports frequency splits of 42/54 MHz, 65/85 MHz, and 85/104 MHz.

SPECIFICATIONS				
MODEL	FFE-8-100K/RP-R	FFE-12-100K/RP-R	FFE-8-100A/RP-R	FFE-12-100A/RP-R
PASSBAND				
Return	5-42 MHz	5-42 MHz	5-65 MHz	5-65 MHz
Forward	54-1003 MHz	54-1003 MHz	85-1003 MHz	85-1003 MHz
MAXIMUM INSERTION LOSS				
5 MHz	0.8 dB	0.8 dB	0.8 dB	0.8 dB
42 MHz	1.2 dB	1.2 dB	-	-
54 MHz	8.5 dB	12.5 dB	-	-
65 MHz	-	-	1.2 dB	1.2 dB
85 MHz	-	-	8.5 dB	12.5 dB
550 MHz	4.0 dB	4.5 dB	4.0 dB	4.5 dB
750 MHz	2.7 dB	2.7 dB	2.7 dB	2.7 dB
870 MHz	2.4 dB	2.3 dB	2.4 dB	2.3 dB
1003 MHz	2.0 dB	2.0 dB	2.0 dB	2.0 dB
Return Flatness	± 0.25	± 0.25	± 0.25	± 0.25
Forward Flatness	± 0.5	± 0.75	± 0.5	± 0.75
Return Loss (max) (5 MHz – F _{maxrtn} MHz)	17 dB	17 dB	17 dB	17 dB
Return Loss (max) (F _{minfwd} MHz – 870 MHz)	17 dB	17 dB	17 dB	17 dB
Return Loss (max) (870 MHz - 1 GHz)	16 dB	16 dB	16 dB	16 dB
MAXIMUM CURRENT	12 A, continuous	12 A, continuous	12 A, continuous	12 A, continuous
HUM MODULATION @ MAX CURRENT				
Forward (F _{min} – 870 MHz)	-70 dB	-70 dB	-70 dB	-70 dB
Forward (870 MHz – 1 GHz)	-60 dB	-60 dB	-60 dB	-60 dB
Return	-60 dB	-60 dB	-60 dB	-60 dB

SPECIFICATIONS (CONTINUED)

MODEL	FFE-8-100N/RP-R	FFE-12-100N/RP-R
PASSBAND		
Return	5-85 MHz	5-85 MHz
Forward	104-1003 MHz	104-1003 MHz
MAXIMUM INSERTION LOSS		
5 MHz	0.8 dB	0.8 dB
85 MHz	1.2 dB	1.2 dB
104 MHz	8.5 dB	12.5 dB
550 MHz	4.0 dB	4.5 dB
750 MHz	2.7 dB	2.7 dB
870 MHz	2.4 dB	2.3 dB
1003 MHz	2.0 dB	2.0 dB
Return Flatness	± 0.25	± 0.25
Forward Flatness	± 0.5	± 0.75
Return Loss (max) (5 MHz – F _{maxrtn} MHz)	17 dB	17 dB
Return Loss (max) (F _{minfwd} MHz – 870 MHz)	17 dB	17 dB
Return Loss (max) (870 MHz – 1 GHz)	16 dB	16 dB
MAXIMUM CURRENT	12 A, continuous	12 A, continuous
HUM MODULATION @ MAX CURRENT		
Forward (F _{min} – 870 MHz)	-70 dB	-70 dB
Forward (870 MHz – 1 GHz)	-60 dB	-60 dB
Return	-60 dB	-60 dB

FFE-*-100*/RP-R Block Diagram



ORDERING INFORMATION

Model Name	Part Number	Description
FFE-8-100K/RP-R	530946-007-00	1 GHz Feederline Equalizer. Shipped with 8 dB plug-in forward equalizer installed; capability to install return path JXP pad. K-split 42/54 MHz - RoHS Compliant
FFE-12-100K/RP-R	530946-008-00	1 GHz Feederline Equalizer. Shipped with 12 dB plug-in forward equalizer installed; capability to install return path JXP pad. K-split 42/54 MHz - RoHS Compliant
FFE-8-100A/RP-R	530946-012-00	1 GHz Feederline Equalizer. Shipped with 8 dB plug-in forward equalizer installed; capability to install return path JXP pad. A-split 65/85 MHz - RoHS Compliant
FFE-12-100A/RP-R	530946-014-00	1 GHz Feederline Equalizer. Shipped with 12 dB plug-in forward equalizer installed; capability to install return path JXP pad. A-split 65/85 MHz - RoHS Compliant
FFE-8-100N/RP-R	530946-009-00	1 GHz Feederline Equalizer. Shipped with 8 dB plug-in forward equalizer installed; capability to install return path JXP pad. N-split 85/104 MHz - RoHS Compliant
FFE-12-100N/RP-R	530946-011-00	1 GHz Feederline Equalizer. Shipped with 12 dB plug-in forward equalizer installed; capability to install return path JXP pad. N-split 85/104 MHz - RoHS Compliant
FFE-HSG/A/RP-R	530946-013-00	1GHz Feederline Equalizer. Shipped without plug-in forward equalizer installed; capability to install return path JXP pad. A-split 65/85 MHz (for other splits, purchase the FFE-*-*/RP-R and remove plug-in EQ - this will be the same as ordering an FFE-HSG) - RoHS Compliant
FFE-HSG/N/RP-R	530946-010-00	1GHz Feederline Equalizer. Shipped without plug-in forward equalizer installed; capability to install return path JXP pad. N-split 85/104 MHz (for other splits, purchase the FFE-*-*/RP-R and remove plug-in EQ - this will be the same as ordering an FFE-HSG) - RoHS Compliant
Optional Accessories		
SFE-100-0	535723-001-00	STARLINE Forward 1003 MHz Equalizer (0 dB) -or-
SFE-100-1 to -22	531124-001 to -022	STARLINE Forward 1003 MHz Equalizer (values 1 to 22 dB in 1 dB steps)
JXP-*B	531186-XXX-00	Plug-in breakaway attenuator/pad (values 0 to 26 dB, in 1 dB steps)

RELATED PRODUCTS

SSP Series System Passives	RF Amplifiers
T-*-Q 1.2 GHz Tap Plug-ins	Optical Nodes

Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

Note: Specifications are subject to change without notice.

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