

STARLINE Series

SLE100 1 GHz Line Extender

FEATURES

- Maintain current amplifier spacing with high output 1 GHz GaAs technology
- Improve amplifier reach with optional 1 GHz GaN technology and increased station tilt
- Expand return path bandwidth with optional 85 MHz return
- Maximize amplifier reach with high gain configuration
- Expand output capability with optional plug-in RF splitters or directional couplers
- Minimize RF drift over temperature with optional ADU



PRODUCT OVERVIEW

The ARRIS SLE100 is a high performing and reliable bi-directional amplifier solution for today's advanced HFC networks. The SLE100 has been designed to optimally balance performance, functionality, and cost effectiveness. This two-way capable, single active output amplifier offers high gain and high output levels along with plug-in accessories and leading distortion performance. The SLE100 can be configured with multiple diplex filter options and an optional second output via a modular splitter or directional coupler. The SLE100 also supports future optional features, such as automatic gain control, via the SLE-ADU and SLE-BODE plug-ins.

Forward Path

The standard SLE100 configuration is equipped with second-generation Enhanced Gallium Arsenide (E-GaAs) technology, which provides superior distortion performance over standard silicon and competing GaAs technologies. If operators require longer reach, the SLE100 can be configured with optional Gallium Nitride (GaN) hybrid technology and increased slope, which allows for a 3 dB increase in drive level over the standard GaAs option.

To provide additional system flexibility and easy installation and maintenance, SLE amplifiers are compatible with standard STARLINE accessories such as JXP attenuators and SFE and SRE forward and return equalizers. For ALC applications, the SLE100 can be configured with an optional BODE board and ADU that provides gain compensation over temperature.

The SLE100 is available in the following frequency split configurations:

- K-split (5 to 42 MHz/54 to 1003 MHz)
- A-split (5 to 65 MHz/85 to 1003 MHz)
- N-split (5 to 85 MHz/104 to 1003 MHz)

Return Path

The SLE100 comes standard with a high gain return path with 24 dB of return station gain. Operators can select return path equalizers ranging from 0 to 12 dB.

RELATED PRODUCTS

SLE-ADU	MBV3
SFE/SRE EQ	MB100
BLE100	Installation Services
Flex Max [®] RF Amplifiers	

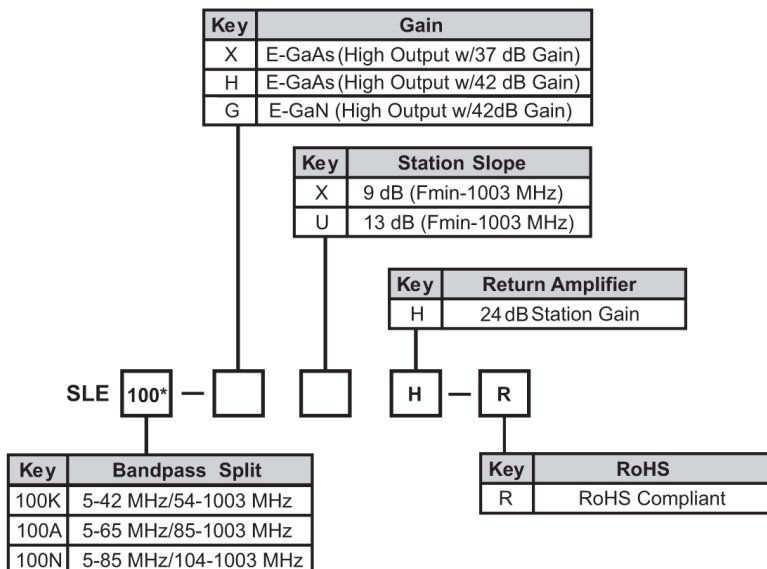
SPECIFICATIONS

	Units	Forward	Return
Passband Frequency	MHz	K (54 – 1003) A (85 – 1003) N (104 – 1003)	K (5 – 42) A (5 – 65) N (5 – 85)
Flatness	dB	±1.0	±1.0
Gain (without SLE-BODE) ¹	dB	37 or 42 (without SLE-BODE) 34 or 39 (with SLE-BODE)	24
Noise Figure ²	dB	9	6.5
Standard Slope Reference Frequency (GaAs)	MHz	1003/550/54	35(flat)
Standard Slope Reference Output Level (GaAs)	dBmV	51/44/37	—
Standard Operating Interstage Slope (GaAs)	dB	9 ±1	
Standard Slope Performance (GaAs)			
Channels, Number of NTSC		79	6
Composite Triple Beat (CTB)	-dBc	71	75
Cross Modulation (XM)	-dBc	70	65
Composite Second Order (CSO)	-dBc	70	77
Ultra Slope Reference Frequency (GaN)	MHz	1003/550/54	35(flat)
Ultra Slope Reference Output Level (GaN)	dBmV	57/48/39	—
Ultra Operating Interstage Slope (GaN)	dB	13 ±1	
Ultra Slope Performance (GaN)			
Channels, Number of NTSC		79	6
Composite Triple Beat (CTB)	-dBc	69	75
Cross Modulation (XM)	-dBc	62	65
Composite Second Order (CSO)	-dBc	66	77
Return Loss	dB	15	15
AC Input Voltage	VAC		27–90
AC Bypass Current	A		10
AC Current Draw ³	A		
@90 VAC			0.63
@75 VAC			0.68
@60 VAC			0.82
@53 VAC			0.97
@45 VAC			1.00
@38 VAC			1.13
@27 VAC			1.60
Connector Type	—		5/8 – 24 UNEF
Operating Temperature Range	°C °F		–40 to +60 –40 to +140
Dimensions, L x W x D	inches mm		10.75 x 8.0 x 4.5 273 x 203 x 114
Weight	lb kg		7.0 3.2

Notes:

- For future use of the SLE-BODE in conjunction with the SLE-ADU-* or SLE-TDU, allow for an additional 7 dB of interstage insertion loss for the SLE. This may be accomplished via a JXP-7B (7 dB attenuator).
- Typical performance.
- Typical performance for quasi-square wave. Optional AGC, Status Monitoring, and/or Ingress Control Switching will increase stated current draw.

1 GHz SLE Ordering Guide



Required Accessories

Part Number	Model	Description
535723-001-00	SFE-100-0	Forward 1003 MHz equalizer (0 dB) –or–
531124-001 to -022	SFE-100-1 to -22	Forward 1003 MHz equalizer (values of 1 to 22 dB in 1 dB steps) –or–
531161-001 to -010	SCS-1 to SCS-10	Cable simulator (values of 1 to 10 dB in 1 dB steps)
531163-xxx-00	SRE-*.*	Return equalizer, 5–42 MHz (K-split), 5–65 MHz (A-split), 5–85 MHz (N-split), values 0 to 12 dB in 2 dB steps
531186-xxx-00	JXP-*.B	Plug-in attenuator/pad (values of 0 to 26 dB in 1 dB steps)

Optional Accessories

Part Number	Model	Description
531230-001-00	SP100	Splitter (1 GHz) to activate second output
531230-002-00	DC100/8	Directional Coupler (1 GHz) to activate second output (8 dB)
531230-003-00	DC100/10	Directional Coupler (1 GHz) to activate second output (10 dB)
531230-004-00	DC100/12	Directional Coupler (1 GHz) to activate second output (12 dB)
SLE-BODE	SLE-BODE	SLE BODE Equalizer (Required for use with SLE-ADU-* or SLE- TDU)
530406-001-00	SLE-ADU-499.25/S-R	499.25 MHz SLE Automatic Drive Unit (For automatic gain control of SLE-BODE)
530406-002-00	SLE-ADU-439.25/S-R	439.25 MHz SLE Automatic Drive Unit (For automatic gain control of SLE-BODE)
530408-001-00	SLE-TDU-R	SLE Thermal Drive Unit (For temperature control of SLE-BODE)

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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