

COMMSCOPE BLE 100

BROADBAND LINE EXTENDER

- Universell einsetzbar (Strecke/Linie)
- 1003 MHz Power Doubler mit Gallium-Arsenid
- Sehr hohe Verstärkung
- Flexible Konfiguration



SPECIFICATIONS E-GaAs	UNITS	FORWARD	RETURN
Frequency split ¹	MHz	K (54 – 1003) A (85 – 1003) N (104 – 1003) ¹⁹	K (5 – 42) A (5 – 65) N (5 – 85)
Flatness ^{2,19}	dB	± 0.7	± 0.5
Minimum Full Gain ³	dB	38	NA
Operation Gain ⁴	dB	34	24
Manual Bode Slope Control Range ⁵	dB	± 4	NA
Noise Figure ⁶	dB	9	5.5
Standard Slope Reference Frequency	MHz	1003/550/54	35 (flat)
Reference Output Level	dBmV	51/44/37	—
Operating Interstage Slope ⁷	dB	9 ± 1	NA
Standard Slope Performance			
Channels, Number of NTSC		79	6
Composite Triple Beat (CTB) ^{8,16}	–dBc	76	80
Cross Modulation (XM) ^{9,16}	–dBc	70	70
Composite Second Order (CSO) ^{8,10,16}	–dBc	70.5	81
Carrier to Intermodulation Noise (CIN) ^{8,16}	dB	65	-
Channels, Number of 256 QAM		154	-
Carrier to Intermodulation Noise (CIN) ²⁰	dB	65	-
Test Point ¹¹	dB	20 (± 1.0 dB)	20 (± 1.0 dB)
Return Loss ¹²	dB	16	15
Hum Modulation @ 12A	dBc	< 65	< 60
Hum Modulation @ 15A ¹²	dBc	< 60	< 60
DC Voltage	VDC	24	
Current DC Max. ¹⁸	mA	920	
Power Consumption Max.	W	35	
AC Input Voltage Range	VAC	38 – 90	
AC Current Draw Max.			
@ 90 VAC	A	0.87	
@ 60 VAC		0.99	
@ 38 VAC		1.04	
AC Bypass Current (all ports) ¹⁴	A	15	
Group Delay, K-split ¹⁵	nSec	52	NA
55.25 to 58.83 MHz			

Group Delay, A-split ¹⁵ 86.25 to 90.68 MHz	nSec	28	NA
Group Delay, N-split ^{15,19} 109.25 to 112.83 MHz 112.25 to 116.68 MHz	nSec	14 12	- -
Operating temperature range	°C °F	-40 to +60 -40 to +140	
Housing dimensions, L x W x D	inches mm	10.6 x 8.0 x 4.7 270 x 204 x 120	
Weight	lb kg	7.2 3.3	

SPECIFICATIONS E-GaN	UNITS	FORWARD	RETURN
Frequency split ¹	MHz	K (54 –1003) A (85 –1003) N (104 –1003) ¹⁹	K (5 –42) A (5 – 65) N (5 – 85)
Flatness ^{2,19}	dB	± 0.7	± 0.5
Minimum Full Gain ³	dB	38	NA
Operation Gain ⁴	dB	34	24
Manual Bode Slope Control Range ⁵	dB	± 4	NA
Noise Figure ⁶	dB	10	5.5
Ultra Slope Reference Frequency ⁷	MHz	1003/550/54	35 (flat)
Reference Output Level	dBmV	57/48/39	—
Operating Interstage Slope	dB	13 ± 1	NA
Ultra Slope Performance			
Channels, Number of NTSC		79	6
Composite Triple Beat (CTB) ^{8,16}	-dBc	71	80
Cross Modulation (XM) ^{9,16}	-dBc	62	70
Composite Second Order (CSO) ^{8,10,16}	-dBc	68	81
Carrier to Intermodulation Noise (CIN) + Channels, Number of 256 QAM	dB	58	-
Carrier to Intermodulation Noise (CIN) ^{20,21}	dB	154 58	- -
Standard Slope Reference Frequency ⁷	MHz	1003/550/54	35 (flat)
Reference Output Level	dBmV	51/44/37	-
Operating Interstage Slope ⁶	dB	9 ± 1	NA
Standard Slope Performance			
Channels, Number of NTSC		79	6
Composite Triple Beat (CTB) ^{8,16}	-dBc	76	80
Cross Modulation (XM) ^{9,16}	-dBc	70	70
Composite Second Order (CSO) ^{8,10,16}	-dBc	70.5	81
Carrier to Intermodulation Noise (CIN) ²¹	dB	66	-
Channels, Number of 256 QAM		154	-
Carrier to Intermodulation Noise (CIN) ^{20,21}	dB	66	-
Test Point ¹¹	dB	20 (± 1.0 dB)	20 (± 1.0 dB)
Return Loss ¹²	dB	16	15
Hum Modulation @ 12A	dBc	< 65	< 60
Hum Modulation @ 15A ¹⁸	dBc	< 60	< 60
DC Voltage	VDC	24	
Current DC Max. ¹³	mA	920	
Power Consumption Max.	W	35	
AC Input Voltage Range	VAC	38 – 90	
AC Current Draw Max. @ 90 VAC @ 60 VAC @ 38 VAC	A	0.87 0.99 1.04	
AC Bypass Current (all ports) ¹⁴	A	15	
Group Delay, K-split ¹⁵ 55.25 to 58.83 MHz	nSec	52	NA
Group Delay, A-split ¹⁵ 86.25 to 90.68 MHz	nSec	28	NA
Group Delay, N-split ^{15,19} 109.25 to 112.83 MHz 112.25 to 116.68 MHz	nSec nSec	14 12	- -

Operating Temperature Range	°C °F	-40 to +60 -40 to +140
Housing dimensions, L x W x D	inches mm	10.6 x 8.0 x 4.7 270 x 204 x 120
Weight	lb kg	7.2 3.3
Housing Material Ingress Protection Rating		Aluminum IP68

Notes:

1. Operating passband of station. Diplex filters are plugged into the electronic chassis.
 2. Referenced to the average gain across the passband.
 3. Minimum full gain at 1003 MHz includes loss of equalizer but Bode slope reserves have not been set. Return gain includes loss of SRE-*4 return equalizer.
 4. Includes loss of slope reserves as well as equalizer.
 5. From midpoint (typical setting is -4 dB at 1003 MHz @ 25°C). This control should not be used for gain reduction.
 6. Specified at the housing cable entry facility over temperature and includes the loss of 1 dB for the pre-stage equalizer. The return noise figure includes the station loss preceding the RF hybrid.
 7. Amount of slope created and cable equivalence of fixed, plug-in interstage equalizer.
 8. Measured with CW carriers and spectrum analyzer over specified temperature range. References the worst-case channel.*
 9. Measured with wave analyzer and synchronous, 100% depth modulated channels. References the worst-case channels over specified temperature range. *
 10. Refers only to beat clusters that fall 0.75 MHz and 1.25 MHz above the subject picture carrier.
 11. Test points should be used with GFAL adapter.
 12. Match measurement at the station input and output, cable- entry facilities, at the specified passbands for operational gain.
 13. Current draw at 24 VDC.
 14. Stated in RMS continuous.
 15. Specified for standard NTSC video, where delay is the delta from picture carrier to 3.58 MHz color subcarrier. Reverse delay is in a 1.5 MHz bandwidth.
 16. Worst-case over temperature in a cascade.
 17. NTSC 79 Channel forward, 75 QAM carriers -6dB relative to analog CW carriers. 6 Channel return.
 18. Hum mod is 55 dB from 5 to 10 MHz at 15A.
 19. For N-split (5-85/104-1003MHz) roll-off from 105 MHz to 102 MHz < 1.0 dB. Group delay from 103.25 MHz to 105.25 MHz is < 22 ns.
 20. 154 QAM carriers 54–1002 MHz. Carriers are -6dB relative to virtual analog levels.
- * Specifications are compliant with the test methods as stated in NCTA Recommended Practices for Measurements on Cable Television