ARRIS

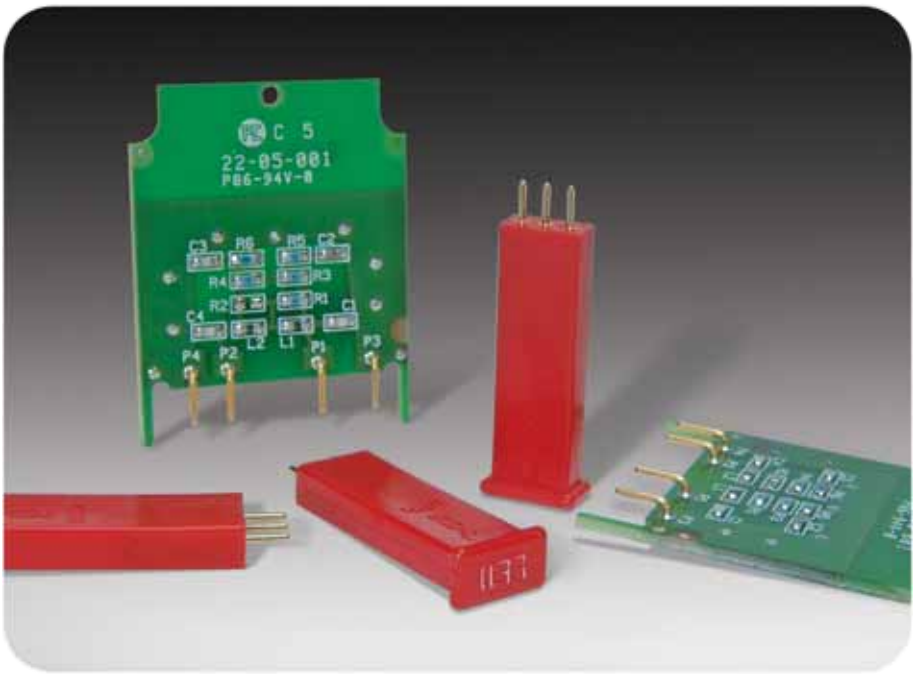

Table of Contents

C-COR® HFC Product Accessories

Reference Guide

Product Reference Guide

ARRIS offers a full complement of plug-in accessories for our strand-mount, cabinet-mount, and rack-mount transmission and distribution equipment. In most cases, these plug-in accessories can be shared across similar product lines.

Options include:

- forward and return attenuators (PADs)
- forward and return equalizers
- forward cable simulators
- input configuration modules
- output distribution accessories
- active and passive return channel modules
- diplexers
- automatic gain control modules
- control (signature correction) modules

The first table, Accessories By Product Line, provides a broad overview of the accessories available for each ARRIS product. The second table, Accessories at a Glance, lists all accessories with a picture and basic information regarding the products it fits into. The sections that follow provide pictures and specifications for each product listed. Contact your ARRIS sales professional if you do not see the ARRIS broadband transmission or distribution product of interest.

Features

- Tested and designed specifically for ARRIS C-COR® products by our engineers
- ARRIS accessories are designed for full functionality over operating temperature
- Product warranties are applicable exclusively to ARRIS authorized accessories

Accessories Referenced by Product

Headend Products Accessory Reference

	Accessory Name	
Product Name	**Forward PAD (attenutaor)**	**Forward Equalizers**
CHP Max5000 Dual TX	Amini Short	EQ
CHP Max5000 Single TX	9-A Short	

Node Product Accessory Reference

Product Name	Accessory Name			
	Forward PAD (attenuator)	Forward EQ	Return PADs (attenuator)	Noise Filter Return PAD
Opti Max4100 1 GHz	NPB	GEQL-1 GHz, 870MHz	NPB	Yes
Opti Max4000 870 MHz Replaced by OM4100	NPB	NEQL-870	NPB	Yes
Opti Max3100 1 GHz	9-A(Receiver) 10-A-WC(RFmod)	GEQL-1 GHz, 870MHz	10-A-WC	Yes
Opti Max3000 870 MHz Replaced by OM3100	9-A, 9-A-WC, 10-A-WC, 10-A-L	7-TG862-WC	9-A(RX), 10-A-L 10-A-WC 9-A-WC	Yes
Opti Max2700 1 GHz	NPB, SPB	SEQPB, SEQ-1GHz, SEQ870, SEQ750 GEQC-1GHz GEQC-870 GEQL-1GHz GEQL-870	NPB, SPB, RPB,	No
	Cable Simulators SCS-1G, SCS862, SCS750		**Output Dist. Accessories** S-Series	
Opti Max2100 1 GHz	NPB, Amini	GEQL-1GHz GEQL-870	NPB, Amini	No
	Input/Output Config Module 7-DC Series Splitters and Taps		**Diplex Filters** D30/47, D42/54, D55/70, D65/85	
Opti Max2000 870 MHz	Amini	Amini	Amini	Yes
	Control Module CM862/xx or A862/0		**Diplex Filters** D30/47, D42/54, D55/70, D65/85	
Opti Max1220 870 MHz	Amini	N/A	Amini	Yes
	Input/Output Config Module 7-DC Series Splitter and Taps		**Diplex Filters** D30/47, D42/54, D55/70, D65/85	
Opti Max1000 870 MHz	9-A, 9-A-WC 10-A-WC, 10-A-L	7-2E862/x-WC	9-A, 9-A-WC 10-A-WC, 10-A-L	Yes

Amplifier Product Accessory Reference

Product Name	FWD PAD	FWD EQ	Accessory Name Cable Simulator	RTN PAD	RTN EQ	Output Dist.
 Flex Max901e 1 GHz Trunk	NPB	SEQ-1G SEQ862 SEQ750 GEQC-870 (O/P EQ)	SEQ-1G SEQ862* SEQ750*	NPB	MEQ-42, 55. 65 MEQT-42, 55. 65	S-Series
Flex Max901e 1 GHz Bridger	NPB	SEQ-1G SEQ862 SEQ750	SEQ-1G SEQ862* SEQ750*	NPB	MEQ-42, 55. 65 MEQT-42, 55. 65	S-Series
 Flex Max601 1 GHz Bridger	10-A-WC 10-A-L	PEQ-1G 7-2E862 6-2E862	PCS-1G 7-2E862C 6-2E862/C	NPB	MEQ-42, 55. 65 MEQT-42, 55. 65	S-Series
Flex Max601 1 GHz Line Extender	10-A-WC 10-A-L	SEQ-1G SEQ862 SEQ750	SEQ-1G SEQ862* SEQ750*	NPB	MEQ-42, 55. 65 MEQT-42, 55. 65	S-Series
 Flex Max500 Cabinet Amp	Amini, Thermal Amini	E862/xx A862/0 E606/x	CE862/x	Amini	Amini	A862/00 S3.5/3.5 Tapxx/xx
	Input Config Module A862/00, S2.5/3.5, Tapxx/xx		**Diplexers** D30/47, D42/54, D55/70, D65/85		**RTN Ch.** Active RCA3-Z Passive RCEQ-Z	**Control Module** CM862/x A862/0
 Flex Max401 Cabinet Amp	**Comming Soon**					
Flex Max400 1 GHz Cabinet Amp	Amini, Thermal Amini	E862/xx A862/0 E606/x	CE862/x	Amini	Amini	A862/00 S3.5/3.5 Tapxx/xx
	Input Config A862/00, S2.5/3.5, Tapxx/xx	**Diplexers** D30/47, D42/54, D55/70, D65/85		**AGC Module** AGC030/x and Amini	**RTN Ch.** Active RCA3-Z Passive RCEQ-Z	**Control Module** CM862/x A862/0
 Flex Max340 Line Extender	SPB	SEQ-862, SEQ-750	SCS862 SCS750	SPB, RPB	MEQ-42, 55. 65 MEQT-42, 55. 65	N/A
 Flex Max331 1 GHz Multipurpose Line Extender	NPB	SEQ-1G SEQ862 SEQ750	SCS-1G SCS862 SCS750	NPB	MEQ-42, 55, 65 MEQT-42, 55, 65	N/A
Flex Max331 1 GHz Line Extender	NPB	SEQ-1G SEQ862 SEQ750	SCS-1G SCS-862 SCS750	NPB	MEQ-42, 55, 65 MEQT-42, 55, 65	N/A
Flex Max330 Line Extender	NPB	SEQ862 SEQ750	SCS862 SCS750	NPB	MEQ-42, 55, 65 MEQT-42, 55, 65	N/A

Flex Max321 1 GHz Bridger						
Flex Max320 1 GHz Line Extender	9-A-WC 10-A-WC	7-2E862-WC 7-2E862C-WC	N/A	9-A-WC 10-A-WC	N/A	N/A

Flex Max222 B Cabinet Amp	Amini Thermal Amini	Amini	N/A	Amini	Amini	7-DC-series Splitter Taps
Flex Max220 B Cabinet Amp	Amini Thermal Amini	Amini	N/A	Amini	Amini	

Flex Max220 P Cabinet Amp	Amini Thermal Amini	E862/xx E606/xx	CE862/x	Amini	Amini	**Diplexers** D30/47, D42/54, D55/70, D65/85

Accessories at a Glance

PADs (Attenuators)

NPB-xxx Forward/Return Path PAD Attenuators

Product Usage

Opti Max4100, Opti Max4000, Flex Max331, Flex Max330, Flex Max901E, Flex Max901

Notes:
1. Height is 1.4", Pin Spacing is 0.125"
2. All in green plastic
3. Can be plugged into Legacy PBN products using 9-A Attenuators, but no guiding mechanism.
4. Same footprint as Amini Series PAD but may be limited by height constraints

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SPB-xxx Forward/Return PAD Attenuator

Product Usage

Flex Max900, Flex Max340, E7xxx, E9xxx, FNT/FNB 700, FNT/FNB 800

Notes:
1. Height is 1.10", Pin Spacing is 0.20"
2. All in green plastic
3. SPB-0 can be used as a jumper in the distribution accessory location for a single output.

RPB-xxx Return PAD Attenuator

Product Usage

Flex Max900, Flex Max340, E7xxx, E9xxx, FNT/FNB 700, FNT/FNB 800

Notes:
1. Height is 1.10", Pin Spacing is 0.20"
2. All in red plastic

9-A Forward/Return PAD Attenuators

Product Usage

Opti Max1000, Opti Max3100, Opti Max3000, GNA/TNA, CHP Max5000 single input TX

Notes:
1. Pin Spacing is 0.125"
2. Green board only
3. Cannot be plugged into products using NPB style PADs due to incompatible guiding mechanisms.
4. Same footprint as Amini Series PAD but may be limited by height constraints. Zero value is possible exception due to performance.

9-A-WC Forward/Return PAD Attenuators

Product Usage

Opti Max1000, Opti Max3100, Opti Max3000, Flex Max601Bridger, Flex Max601 Line Extender, Flex Max321, Flex Max320, GNA/TNA

Notes:
1. Pin Spacing is 0.125"
2. 9-A-WC has a partial blue plastic cover with guides
3. Cannot be plugged into products using NPB style PADs due to incompatible guiding mechanisms.
4. Same footprint as Amini Series PAD but may be limited by height constraints. Zero value is possible exception due to performance.
5. The blue cover can be removed from the 9-A-WC allowing usage in 9-A locations but may be limited by height constraints
6. Can be used in the Diamond Line 1, 2, and 3

PADs (Attenuators)

10-A-WC Forward/Return PAD Attenuators

Product Usage

Opti Max1000, Opti Max3100, Opti Max3000, Flex Max601Bridger, Flex Max601 Line Extender, Flex Max321, Flex Max320, Diamond Line 1, 2, 3

Notes:

1. Height is 1.15", Pin Spacing is 0.125"
2. Blue plastic cover with guides.
3. Cannot be plugged into products using NPB style PAD, due to incompatible guiding mechanisms.
4. Same footprint as Amini Series PAD but may be limited by height constraints. Zero value is possible exception due to performance.

10-A-L Forward/Return PAD Attenuators

Product Usage

Opti Max1000, Opti Max3100, Opti Max3000, Flex Max601Bridger, Flex Max601 Line Extender, Flex Max321, Flex Max320, Diamond Line 1, 2, 3

Notes:

1. Height is 1.15", Pin Spacing is 0.125"
2. Blue plastic cover without guides.
3. Cannot be plugged into products using NPB style PAD, due to incompatible guiding mechanisms.
4. Same footprint as Amini Series PAD but may be limited by height constraints. Zero value is possible exception due to performance.

Amini PAD Attenuators

Product Usage

Opti Max3000, Opti Max2100, Opti Max2000, Flex Max500, Flex Max400, Flex Max222Basic, Flex Max220Basic, Flex Max220Plus Flex Max200, I-FLEX, FEQR-xx, FTERM-xx

Notes:

1. Height is 1.0", Pin Spacing is 0.125".
2. All in orange plastic.
3. Can be plugged into Legacy PBN products using 9-A-WC Attenuators, but no guiding mechanism.
4. Same footprint as NPB and 9-A Series but may be limited by height constraints.
5. Replaces IPB style PADs (AT0xxx).

Amini Short PAD Attenuators

Product Usage

CHP Max5000 Dual Output Transmitters

Notes:

1. Height is 0.45", Pin Spacing is 0.125".
2. All in orange plastic.
3. Same footprint as NPB and 9-A Series but may be limited by height constraints.

Thermal Amini PAD Attenuators

Product Usage

Opti Max2000, Flex Max500, Flex Max400, Flex Max220, Flex Max200, I-FLEX

Notes:

1. Height is 1.0", Pin Spacing is 0.125".
2. All in white plastic.
3. Can be plugged into Legacy PBN products using 9-A Attenuators, but no guiding mechanism.
4. Same footprint as NPB and 9-A Series but may be limited by height constraints.

Thermal PAD Attenuators

Product Usage

Flex Max321, Flex Max320

Notes:

5. All in blue plastic.

SEQPB-xx EQ Form Factor PAD Attenuators

Product Usage

Flex Max901, Flex Max331, Flex Max330, Flex Max340, Flex Max900, E7xxx, E9xxx, FNT/FNB 700, FNT/FNB 800

Notes:

1. Plugs into the equalizer location to add flat attenuation across the passband.

PADs (Attenuators)

A862/0 Bridge

Product Usage

Flex Max500, Flex Max400

Notes:

1. Blue plastic cover to protect components.
2. Can be inserted into not only the Forward PAD location, but also the Input/Output Configuration Module locations.

Noise Filters

Noise Filter

Product Usage

Opti Max4100, Opti Max4000, Opti Max3100, Opti Max3000, Opti Max2000, Opti Max1000, Opti Max1220, Flex Max500, Flex Max400, Flex Max330, Flex Max331, Flex Max320, Flex Max222, Flex Max220 basic, Flex Max220 plus

Notes:

1. Height is 1.182", Pin Spacing is 0.125".
2. Accessory for return attenuator (PAD) plug-in locations.
3. In some cases, the ingress filter may have to be inserted or removed with needlenose pliers.

Linear Equalizers

GEQL-1GHZ-xxx Linear Equalizers

Product Usage

Opti Max4100, Flex Max901E (trunk only)

Notes:

1. Height is 1.4", Symmetrical Pin Spacing
2. All in red plastic
3. Can be plugged into NPB or 9-A style sockets
4. 1 GHz "red" Eqs can be used for 870 MHz bandwidth if the losses are acceptable

GEQL-1GHZ-xxx-1 Linear Equalizers

Product Usage

Opti Max3100

Notes:

1. Height is 1.0", Symmetrical Pin Spacing
2. All in red plastic
3. Can be plugged into NPB or 9-A style sockets
4. 1 GHz "red" Eqs can be used for 870 MHz bandwidth if the losses are acceptable

GEQL-870-xxx Linear Equalizers

Product Usage

Opti Max4100

Notes:

1. Height is 1.4", Symmetrical Pin Spacing
2. All in purple plastic

Linear Equalizers

GEQL-870-xxx-1 Linear Equalizers

Product Usage

Opti Max3100

Notes:
1. Height is 1.0", Symmetrical Pin Spacing
2. All in purple plastic

NEQL-870-xx Linear Equalizers

Product Usage

Opti Max4000

Notes:
1. Height is 1.4", Non-symmetrical Pin Spacing
2. All in yellow plastic

Plug-In Equalizers

SEQ-1GHz-xx Cable Equalizers

Product Usage

Opti Max4100, Flex Max901E, Flex Max901, Flex Max331

Note:
1. Cannot be plugged into FM330 or Legacy C-COR Amps due to PCB guiding mechanism

PEQ-1G-xx Cable Equalizers

Product Usage

Flex Max601Bridger, Flex Max601 Line Extender, Flex Max321

Note:
1. All in blue pastic

GEQC-870-xxx Cable Equalizers

Product Usage

Flex Max901E (trunk only)

Note:
1. Needed to configure for an 870MHz system in the Flex Max901E Trunk.
2. Height is 1.4"
3. All in blue plastic

GEQC-1GHZ-xxx Cable Equalizers

Product Usage

Flex Max901E (trunk only)

Note:
1. Needed to configure for an 870MHz system in the Flex Max901E Trunk.
2. Height is 1.4"
3. All in brown plastic

SEQ862-xx Cable Equalizers

Product Usage

Flex Max901E, Flex Max901, Flex Max900, Flex Max340, Flex Max331, Flex Max330, FNT/FNB 800

Note:
1. Legacy C-COR.
2. This product was previously available with a cover, and this covered version is not usable in the Flex Max901, Flex Max331, and Flex Max330.

7-2E862/x-WC Forward Path Cable Equalizers

Product Usage

Opti Max1000, Opti Max3000, Flex Max320, Diamond Line 1, Diamond Line 2

Notes:
1. Legacy Philips
2. All versions have protective cover to protect components.

Plug-In Equalizers

E862/xx Series Cable Equalizers

Product Usage

Flex Max500, Flex Max400, Flex Max220 Plus

Notes:
1. All versions have a blue plastic cover to protect components.

7-TG862-WC Linear Tilt Equalizers

Product Usage

Opti Max1000, Opti Max3000, Flex Max320, Diamond Line 1, Diamond Line 2

Notes:
1. Legacy Philips.
2. All versions have a blue cover to protect components.

SEQ750-xx Cable Equalizers

Product Usage

Flex Max901E, Flex Max901, Flex Max900, Flex Max340, Flex Max331, Flex Max330, E7xxx, E9xxx, FNT/FNB700, FNT/FNB800

Notes:
1. Legacy C-COR.
2. Were produced with and without a cover.
3. Fits in the Flex Max901, Flex Max331, and Flex Max330 only without the cover.

Picture Coming Soon

E606-xx Cable Equalizers

Product Usage

Flex Max500, Flex Max400, Flex Max220 Plus

Notes:
1. All in blue plastic.

7-REFxx/x-WC Return Cable Equalizers

Product Usage

Flex Max320, Diamond Line 1, Diamond Line 2

Notes:
1. Legacy Philips.
2. All versions have a blue cover to protect components.

Cable Simulators

SCS-1G-xx Cable Simulators

Product Usage

Opti Max4100, Flex Max901E, Flex Max901, Flex Max331

Note:

1. Cannot be plugged into FM330 or Legacy C-COR Amps due to PCB guiding mechanism.

SCS862-xx Cable Simulators

Product Usage

Flex Max901E, Flex Max901, Flex Max900, Flex Max340, Flex Max331, Flex Max330, E9xxx, FNT/FNB 800

Note:

1. Legacy C-COR.
2. Were produced with and without a cover.
3. Fits in the Flex Max901, Flex Max331, and Flex Max330, only without the cover.

7-2E862/Cx-WC Forward Path Cable Simulators

Product Usage

Opti Max1000, Opti Max3000, Flex Max320, Diamond Line 1, Diamond Line 2

Notes:

1. Legacy Philips.
2. All versions have protective cover to protect components.

SCS750-xx Cable Simulators

Product Usage

Flex Max901E, Flex Max901, Flex Max900, Flex Max340, Flex Max331, Flex Max330, E7xxx, E9xxx, FNT/FNB800, FNT/FNB700

Notes:

1. Legacy C-COR.
2. Were produced with and without a cover.
3. Fits in the Flex Max901, Flex Max331, and Flex Max330 only without the cover.

CE862/xx Cable Simulators (Equivalents)

Product Usage

Flex Max500, Flex Max400

Notes:

1. All versions have a blue plastic cover to protect components.

Splitters and Taps

Splitter

Product Usage

Flex Max500, Flex Max400

Notes:

1. All versions have a blue plastic cover to protect components.

Taps

Product Usage

Flex Max500, Flex Max400

Notes:

1. All versions have a blue plastic cover to protect components.

Splitters and Taps

7-DC-x-5-870-WC Splitters and Directional Couplers (TAPs)

Product Usage

Opti Max1220, Flex Max222

Notes:

1. All versions have a blue cover to protect components and insertion guides.

S-Series Distribution Accessories

SS/SDC-1000-xx Distribution Accessories

Product Usage

Flex Max901E Flex Max901, Flex Max900, E900, FlexNet 700, FlexNet 800

Notes:

1. Legacy C-COR
2. All versions have a white plastic cover to protect components.

Diplexers

Product Usage

Opti Max2000, Flex Max500, Flex Max400, Flex Max220 Plus

Notes:

1. All versions have a blue plastic cover to protect components

RCA3-Z Active Return Channel

Product Usage

Flex Max500, Flex Max400

Notes:

1. Aminis are plugged into the 3 slots.
2. Shown upside-down.

RCEQ-Z Passive Return Channel

Product Usage

Flex Max500, Flex Max400

Notes:

1. All versions have a blue cover to protect components.

AGC030/xxx.xx AGC Module

Product Usage

Flex Max400

Notes:

1. Aminis are plugged into the slot.

CM862/xx Control Module

Product Usage

Opti Max2000, Flex Max500, Flex Max400

Notes:

1. Aminis are plugged into the 3 slots.
2. Shown upside-down.

PADs (Attenuators) Specifications

PADs provide flat loss attenuation of RF signal across the entire passband. They are used in conjunction with equalizers to achieve proper amplifier forward output levels and return input levels. These PADs also have a fixed insertion loss regardless of frequency. SEQPB series PADs are PADs on an equalizer footprint and only work in the forward path. Amini series attenuators can be used in cabinet-mount equipment as both an attenuator and an equalizer depending upon the plug-in location.

NPB Series Cable Attenuators (PADs)

P/N	5–1002 MHz Flat Loss (dB)	Passband Flatness (dB)	P/N	5–1002 MHz Flat Loss (dB)	Passband Flatness (dB)
NPB-000	0.0	±0.2	NPB-110	11.0	±0.3
NPB-010	1.0	±0.3	NPB-120	12.0	±0.3
NPB-020	2.0	±0.3	NPB-130	13.0	±0.3
NPB-030	3.0	±0.3	NPB-140	14.0	±0.3
NPB-040	4.0	±0.3	NPB-150	15.0	±0.4
NPB-050	5.0	±0.3	NPB-160	16.0	±0.4
NPB-060	6.0	±0.3	NPB-170	17.0	±0.4
NPB-070	7.0	±0.3	NPB-180	18.0	±0.4
NPB-080	8.0	±0.3	NPB-190	19.0	±0.4
NPB-090	9.0	±0.3	NPB-200	20.0	±0.4
NPB-100	10.0	±0.3	NPB-750	terminator	—

Impedance: 75Ω *Specification Document Number 601263 Rev B*
Temperature Range: –40 to 85°C
Return Loss: 20dB

Flatness measured relative to a straight line at the listed dB value.
All in green plastic

Specifications subject to change without notice

SPB Series Cable Attenuators (PADs)

Model	P/N	Flat Loss 5-1002	Model	P/N	Flat Loss 5-1002	Model	P/N	Flat Loss 5-1000
SPB-0	162260-00	0.0 dB	SPB-7	162260-07	7.0dB	SPB-14	162260-14	14.0dB
SPB-0.5	162260-005	0.5dB	SPB-7.5	162260-075	7.5dB	SPB-14.5	162260-145	14.5dB
SPB-1	162260-01	1.0dB	SPB-8	162260-08	8.0dB	SPB-15	162260-15	15.0dB
SPB-1.5	162260-015	1.5dB	SPB-8.5	162260-085	8.5dB	SPB-15.5	162260-155	15.5dB
SPB-2	162260-02	2.0dB	SPB-9	162260-09	9.0dB	SPB-16	162260-16	16.0dB
SPB-2.5	162260-025	2.5dB	SPB-9.5	162260-095	9.5dB	SPB-16.5	162260-165	16.5dB
SPB-3	162260-03	3.0dB	SPB-10	162260-10	10.0dB	SPB-17	162260-17	17.0dB
SPB-3.5	162260-035	3.5dB	SPB-10.5	162260-105	10.5dB	SPB-17.5	162260-175	17.5dB
SPB-4	162260-04	4.0dB	SPB-11	162260-11	11.0dB	SPB-18	162260-18	18.0dB
SPB-4.5	162260-045	4.5dB	SPB-11.5	162260-115	11.5dB	SPB-18.5	162260-185	18.5dB
SPB-5	162260-05	5.0dB	SPB-12	162260-12	12.0dB	SPB-19	162260-19	19.0dB
SPB-5.5	162260-055	5.5dB	SPB-12.5	162260-125	12.5dB	SPB-19.5	162260-195	19.5dB
SPB-6	162260-06	6.0dB	SPB-13	162260-13	13.0dB	SPB-20	162260-20	20.0dB
SPB-6.5	162260-065	6.5dB	SPB-13.5	162260-135	13.5	SPB Term.	162260-99	—

Passband Flatness: 0.3dB, P–V *Specification Document Number 600437 Rev C*
Return Loss: 19dB
All in green plastic

Specifications subject to change without notice

RPB Series Cable Attenuators (PADs)

Model	P/N	5–200 MHz Flat Loss (dB)
RPB-21	162467-21	21.0
RPB-22	162467-22	22.0
RPB-23	162467-23	23.0
RPB-24	162467-24	24.0
RPB-25	162467-25	25.0

Passband Flatness: ±0.3 dB *Specification Document Number 600701 Rev A*

Return Loss I/O: 25 dB

All in red plastic

Note:
1. Reverse SPB-style PAD

Specifications subject to change without notice

SEQPB Series Cable Attenuators (PADs)

Model	P/N	5–1002 MHz Flat Loss (dB)	Model	P/N	5–1002 MHz Flat Loss (dB)
SEQPB-1000-01	162335-01	1.0	SEQPB-1000-06	162335-06	6.0
SEQPB-1000-1.5	162335-15	1.5	SEQPB-1000-07	162335-07	7.0
SEQPB-1000-02	162335-02	2.0	SEQPB-1000-08	162335-08	8.0
SEQPB-1000-03	162335-03	3.0	SEQPB-1000-09	162335-09	9.0
SEQPB-1000-04	162335-04	4.0	SEQPB-1000-10	162335-10	10.0
SEQPB-1000-05	162335-05	5.0			

Passband Flatness: ±0.3 dB *Specification Document Number 600668 Rev F*

Return Loss: 19 dB (SEQPB-01 to SEQPB-06)/18.5 dB (SEQPB-07 to SEQPB-10)

Tolerance: ±0.5 dB of nominal value

Slope: –0.2 to –0.7 dB

Specifications subject to change without notice

9-A Series Cable Attenuators (PADs)

Model	P/N	5–1002 MHz Flat Loss (dB)	Passband Flatness (dB)
9-A0	2500505	0.0	±0.5
9-A0.5	2500698	0.5	±0.1
9-A1	2500856	1.0	±0.1
9-A1.5	2500699	1.5	±0.1
9-A2	2500857	2.0	±0.2
9-A2.5	2500700	2.5	±0.2
9-A3	2500858	3.0	±0.2
9-A3.5	2500701	3.5	±0.2
9-A4	2500859	4.0	±0.2
9-A4.5	2500702	4.5	±0.2
9-A5	2500860	5.0	±0.2
9-A5.5	2500703	5.5	±0.2
9-A6	2500861	6.0	±0.2
9-A6.5	2500704	6.5	±0.2
9-A7	2500705	7.0	±0.2
9-A7.5	2500706	7.5	±0.2
9-A8	2500707	8.0	±0.2
9-A8.5	2500708	8.5	±0.2
9-A9	2500862	9.0	±0.2

9-A Series Cable Attenuators (PADs)

Model	P/N	5–1002 MHz Flat Loss (dB)	Passband Flatness (dB)
9-A9.5	2500709	9.5	±0.2
9-A10	2500710	10.0	±0.2
9-A10.5	2500711	10.5	±0.2
9-A11	2500712	11.0	±0.2
9-A11.5	2500713	11.5	±0.2
9-A12	2500863	12.0	±0.2
9-A12.5	2500714	12.5	±0.2
9-A13	2500715	13.0	±0.2
9-A13.5	2500716	13.5	±0.2
9-A14	2500717	14.0	±0.2
9-A14.5	2500718	14.5	±0.2
9-A15	2500864	15.0	±0.2
9-A15.5	2500719	15.5	±0.2
9-A16	2500720	16.0	±0.2
9-A16.5	2500721	16.5	±0.2
9-A17	2500722	17.0	±0.2
9-A17.5	2500723	17.5	±0.2
9-A18	2500865	18.0	±0.2
9-A18.5	2500724	18.5	±0.2
9-A19	2500725	19.0	±0.2
9-A19.5	2500726	19.5	±0.2
9-A-TERM	2500847	terminator	—
Return Loss @ 1000 MHz: 20 dB			

9-A-WC Series Cable Attenuators (PADs)

Model	P/N	5–1002 MHz Flat Loss (dB)	Passband Flatness (dB)
9-A0-WC	2500584	0.0	±0.5
9-A0.5-WC	2500585	0.5	±0.1
9-A1-WC	2500586	1.0	±0.1
9-A1.5-WC	2500587	1.5	±0.1
9-A2-WC	2500588	2.0	±0.2
9-A2.5-WC	2500589	2.5	±0.2
9-A3-WC	2500590	3.0	±0.2
9-A3.5-WC	2500591	3.5	±0.2
9-A4-WC	2500592	4.0	±0.2
9-A4.5-WC	2500593	4.5	±0.2
9-A5-WC	2500594	5.0	±0.2
9-A5.5-WC	2500595	5.5	±0.2
9-A6-WC	2500596	6.0	±0.2
9-A6.5-WC	2500597	6.5	±0.2
9-A7-WC	2500598	7.0	±0.2
9-A7.5-WC	2500599	7.5	±0.2
9-A8-WC	2500600	8.0	±0.2
9-A8.5-WC	2500601	8.5	±0.2
9-A9-WC	2500602	9.0	±0.2
9-A9.5-WC	2500603	9.5	±0.2
9-A10-WC	2500604	10.0	±0.2
9-A10.5-WC	2500605	10.5	±0.2
9-A11-WC	2500606	11.0	±0.2
9-A11.5-WC	2500607	11.5	±0.2
9-A12-WC	2500608	12.0	±0.2

9-A-WC Series Cable Attenuators (PADs)

9-A12.5-WC	2500609	12.5	±0.2
9-A13-WC	2500610	13.0	±0.2
9-A13.5-WC	2500611	13.5	±0.2
9-A14-WC	2500612	14.0	±0.2
9-A14.5-WC	2500613	14.5	±0.2
9-A15-WC	2500614	15.0	±0.2
9-A15.5-WC	2500615	15.5	±0.2
9-A16-WC	2500616	16.0	±0.2
9-A16.5-WC	2500617	16.5	±0.2
9-A17-WC	2500618	17.0	±0.2
9-A17.5-WC	2500619	17.5	±0.2
9-A18-WC	2500620	18.0	±0.2
9-A18.5-WC	2500621	18.5	±0.2
9-A19-WC	2500622	19.0	±0.2
9-A19.5-WC	2500623	19.5	±0.2
9-A-TERM-WC	2500848	terminator	—

Specification Document Number 871371 Rev D

10-A-L Series Cable Attenuators (PADs)

Model	P/N	5–1002MHz Flat Loss (dB)	Passband Flatness (dB)
10-A0.0-L	2501042	0.0	±0.5
10-A1.0-L	2501044	1.0	±0.1
10-A2.0-L	2501046	2.0	±0.2
10-A3.0-L	2501048	3.0	±0.2
10-A4.0-L	2501050	4.0	±0.2
10-A5.0-L	2501052	5.0	±0.2
10-A6.0-L	2501054	6.0	±0.2
10-A7.0-L	2501056	7.0	±0.2
10-A8.0-L	2501058	8.0	±0.2
10-A9.0-L	2501060	9.0	±0.2
10-A10.0-L	2501062	10.0	±0.2
10-A11.0-L	2501064	11.0	±0.2
10-A12.0-L	2501066	12.0	±0.2
10-A13.0-L	2501068	13.0	±0.2
10-A14.0-L	2501070	14.0	±0.2
10-A15.0-L	2501072	15.0	±0.2
10-A16.0-L	2501074	16.0	±0.2
10-A17.0-L	2501076	17.0	±0.2
10-A18.0-L	2501078	18.0	±0.2
10-A19.0-L	2501080	19.0	±0.2
10-A20.0-L	2501086	20.0	±0.2
10-A21.0-L	2501081	21.0	±0.2
10-A22.0-L	2501141	22.0	±0.2
10-A23.0-L	2501142	23.0	±0.2
10-A24.0-L	2501143	24.0	±0.2
10-A25.0-L	2501144	25.0	±0.2
10-A26.0-L	2501145	26.0	±0.2

Return Loss @ 1000MHz: 20dB

Specifications subject to change without notice

10-A-WC Series Cable Attenuators (PADs)

Model	P/N	5–1002 MHz Flat Loss (dB)	Passband Flatness (dB)
10-A0.0-WC	2500987	0.0	±0.5
10-A1.0-WC	2501031	1.0	±0.1
10-A2.0-WC	2501032	2.0	±0.2
10-A3.0-WC	2500989	3.0	±0.2
10-A4.0-WC	2501035	4.0	±0.2
10-A5.0-WC	2501036	5.0	±0.2
10-A6.0-WC	2501001	6.0	±0.2
10-A7.0-WC	2501039	7.0	±0.2
10-A8.0-WC	2501040	8.0	±0.2
10-A9.0-WC	2501003	9.0	±0.2
10-A10.0-WC	2501005	10.0	±0.2
10-A11.0-WC	2501007	11.0	±0.2
10-A12.0-WC	2501009	12.0	±0.2
10-A13.0-WC	2501011	13.0	±0.2
10-A14.0-WC	2501013	14.0	±0.2
10-A15.0-WC	2501015	15.0	±0.2
10-A16.0-WC	2501017	16.0	±0.2
10-A17.0-WC	2501019	17.0	±0.2
10-A18.0-WC	2501021	18.0	±0.2
10-A19.0-WC	2501023	19.0	±0.2
10-A20.0-WC	2501025	20.0	±0.2
10-A21.0-WC	2501027	21.0	±0.2
10-A22.0-WC	2501151	22.0	±0.2
10-A23.0-WC	2501152	23.0	±0.2
10-A24.0-WC	2501153	24.0	±0.2
10-A25.0-WC	2501154	25.0	±0.2
10-A26.0-WC	2501155	26.0	±0.2

Specification Document Number 871371 Rev D

Amini

Model	P/N	Atten. 5–862 MHz Flat Loss dB	FWD EQ, 65/85 MHz Insertion Loss in dB at Frequency (MHz)		EQ Value in dB	RTN EQ, 65/85 MHz Insertion Loss in dB at Frequency (MHz)		EQ Value in dB
			85	862		5	65	
Amini-0	PH0.31401	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amini-1	PH0.31851	1.0	.98	.23	.75	.99	.03	.96
Amini-2	PH0.31411	2.0	1.92	.40	1.52	1.97	.04	1.93
Amini-3	PH0.31861	3.0	2.87	.51	2.36	2.94	.06	2.88
Amini-4	PH0.31421	4.0	4.06	.56	3.50	4.16	.08	4.08
Amini-5	PH0.31871	5.0	4.81	.59	4.22	4.90	.09	4.81
Amini-6	PH0.31431	6.0	5.82	.62	5.20	5.95	.10	5.85
Amini-7	PH0.31881	7.0	6.67	.62	6.05	6.84	.11	6.73
Amini-8	PH0.31441	8.0	7.67	.62	7.05	7.83	.12	7.71
Amini-9	PH0.31891	9.0	8.58	.60	7.98	8.80	.13	8.67
Amini-10	PH0.31451	10.0	9.49	.59	8.90	9.73	.14	9.59
Amini-11	PH0.31901	11.0	10.40	.60	9.80	10.68	.14	10.54
Amini-12	PH0.31461	12.0	11.34	.58	10.76	11.61	.15	11.46
Amini-13	PH0.31911	13.0	12.26	.56	11.70	12.57	.15	12.42
Amini-14	PH0.31471	14.0	13.11	.55	12.56	13.42	.16	13.26
Amini-15	PH0.31921	15.0	13.99	.55	13.44	14.30	.16	14.14
Amini-16	PH0.31481	16.0	14.88	.61	14.27	15.18	.17	15.01
Amini-17	PH0.31931	17.0	—	—	—	—	—	—
Amini-18	PH0.31491	18.0	—	—	—	—	—	—
Amini-19	PH0.31941	19.0	—	—	—	—	—	—
Amini-20	PH0.31951	20.0	—	—	—	—	—	—

All in orange plastic

Note:

1. Amini plug-ins can be used as both PADs and EQs in the Forward Path in the Flex Max220 Basic and Flex Max222 Amplifiers

Specifications subject to change without notice

Amini Short

P/N	PAD Value	P/N	PAD Value	P/N	PAD Value	P/N	PAD Value
1300453	0.0	1300467	6.0	1300481	12.0	KP010463	18.0
1300454	0.5	1300469	6.5	KP010319	12.5	KP010464	18.5
1300455	1.0	1300471	7.0	KP010320	13.0	KP010465	19.0
1300456	1.5	1300472	7.5	KP010321	13.5	KP010466	19.5
1300457	2.0	1300473	8.0	KP010322	14.0	KP010467	20.0
1300458	2.5	1300474	8.5	KP010323	14.5	KP010468	20.5
1300459	3.0	1300475	9.0	KP010457	15.0	KP010469	21.0
1300460	3.5	1300476	9.5	KP010458	15.5	KP010470	21.5
1300461	4.0	1300477	10.0	KP010459	16.0	KP010471	22.0
1300462	4.5	1300478	10.5	KP010460	16.5	KP010472	22.5
1300463	5.0	1300479	11.0	KP010461	17.0	KP010473	23.0
1300464	5.5	1300480	11.5	KP010462	17.5		

All in orange plastic

Note:

1. Amini Shorts are used in the CHP Max5000 Dual Input Transmitter and should be inserted with needle-nose pliers.

Specifications subject to change without notice

Thermal Amini

Model	P/N	Model	P/N	Model	P/N
TAmini-0		TAmini-6	KF512127 6dB	TAmini-12	KF512133 12dB
TAmini-1	KF512122 1dB	TAmini-7	KF512128 7dB	TAmini-13	
TAmini-2	KF512123 2dB	TAmini-8	KF512129 8dB	TAmini-14	
TAmini-3	KF512124 3dB	TAmini-9	KF512130 9dB	TAmini-15	
TAmini-4	KF512125 4dB	TAmini-10	KF512131 10dB		
TAmini-5	KF512126 5dB	TAmini-11	KF512132 11dB		

All in white plastic

Specifications subject to change without notice

Thermal PAD

P/N	PAD Value
0707424-801	3dB

All in blue plastic

Specifications subject to change without notice

A862

Model	P/N	PAD Value	Flatloss 5–862MHz	Passband Flatness
Bridge (A862/0)	PH0.40071	0	0	±0.15dB
A862/02	PH0.40081	2	2	±0.15dB
A862/04	PH0.40091	4	4	±0.15dB
A862/05	PH0.41391	5	5	±0.15dB
A862/06	PH1.40101	6	6	±0.15dB
A862/08	PH0.40111	8	8	±0.15dB
A862/10	PH0.40121	10	10	±0.15dB

Dimensions, L x H: 30 x 37.7mm
All in blue Plastic.

Specifications subject to change without notice.

Noise Filter Specifications

The Return Ingress Noise Filter is a new C-COR RF accessory for return attenuator (PAD) plug-in locations. This new accessory not only suppresses signals below 10 MHz with at least 30 dB of attenuation but also passes signals above 15 MHz with minimal insertion loss. Ingress noise represents one of the major disturbances that affect upstream data transmission in broadband networks. This high pass filter prevents narrowband AM modulation carriers, such as short-wave radio signals, and any other interference from being introduced into the return path via an external source. Managing ingress noise in the return plant is crucial for data carrier performance, especially in broadband networks in which the return path is increasingly used for advanced services including video on demand and voice over IP. The new C-COR Return Ingress Noise Filter is a small, simple, yet vital component for implementing these services.

KF112993 Return Ingress Noise Filter

RF impedance, Ω	75
Pass Band	
Bandwidth, MHz	15–200
Insertion Loss, dB	
15–20 MHz	< 1.50
20–200 MHz	< 1.00
Return Loss, dB	£-18
Stop Band	
Bandwidth, MHz	5–10
Attenuation, dB	Š30
Physical and Environmental Characteristics	
Dimensions (w x h x d), mm	11 x 30 x 5
Connector	3 pin plug-in
Temperature, °C	-40 to 85
Humidity, % Relative Humidity	5–95

Specification Document Number KR012940

Note:
1. In some cases, the ingress filter may have to be inserted or removed with needlenose pliers
2. Contact your C-COR sales professional regarding the new Return Ingress Noise Filter

Specifications subject to change without notice

Plug-in Equalizers Specifications

Plug-in equalizers are available as either linear equalizers or cable equalizers, both of which provide attenuation of RF signals with the greatest attenuation occurring at the lowest rated frequency. Linear equalizers provide linear attenuation, while cable equalizers provide sloped attenuation. GEQLS, NEQLs, and 7-TG862-WCs are linear equalizers. SEQs, 7-2E862/x-WCs, MEQs, and MEQTs are cable equalizers. Equalizers are available as both fixed (GEQL, NEQL, SEQ, 7-TG-862-WC, and 7-2E862/x-WC, and MEQ series) or thermal (MEQT series). All except the MEQ and MEQT series provide equalization in the forward path. Thermal equalizers provide level control in addition to equalization by slope-compensated insertion loss that changes with temperature for the amount of cable equalized.

GEQL-1GHZ-xxx and GEQL-1GHZ-xxx-1 Series Linear Equalizers

		Insertion Loss in dB at Frequency (MHz)										
P/N (Note 1)	**P/N (Note 2)**	**45**	**70**	**100**	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1002**
GEQL-1GHZ-000	GEQL-1GHZ-000-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GEQL-1GHZ-020	GEQL-1GHZ-020-1	2.0	2.0	1.9	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0
GEQL-1GHZ-030	GEQL-1GHZ-030-1	3.0	2.9	2.9	2.5	2.3	2.0	1.8	1.6	1.4	1.2	1.0
GEQL-1GHZ-040	GEQL-1GHZ-040-1	4.0	3.9	3.8	3.2	2.9	2.6	2.3	2.0	1.6	1.3	1.0
GEQL-1GHZ-050	GEQL-1GHZ-050-1	5.0	4.9	4.8	3.9	3.5	3.1	2.7	2.3	1.8	1.4	1.0
GEQL-1GHZ-060	GEQL-1GHZ-060-1	6.0	5.9	5.7	4.7	4.1	3.6	3.1	2.6	2.0	1.5	1.0
GEQL-1GHZ-070	GEQL-1GHZ-070-1	7.0	6.8	6.7	5.4	4.8	4.1	3.5	2.9	2.3	1.6	1.0
GEQL-1GHZ-080	GEQL-1GHZ-080-1	8.0	7.8	7.6	6.1	5.4	4.7	3.9	3.2	2.5	1.7	1.0
GEQL-1GHZ-090	GEQL-1GHZ-090-1	9.0	8.8	8.5	6.9	6.0	5.2	4.4	3.5	2.7	1.8	1.0
GEQL-1GHZ-100	GEQL-1GHZ-100-1	10.0	9.8	9.5	7.6	6.7	5.7	4.8	3.8	2.9	1.9	1.0
GEQL-1GHZ-110	GEQL-1GHZ-110-1	11.0	10.7	10.4	8.3	7.3	6.2	5.2	4.1	3.1	2.0	1.0
GEQL-1GHZ-120	GEQL-1GHZ-120-1	12.0	11.7	11.4	9.1	7.9	6.8	5.6	4.5	3.3	2.2	1.0
GEQL-1GHZ-130	GEQL-1GHZ-130-1	13.0	12.8	12.4	9.9	8.6	7.3	6.1	4.8	3.5	2.3	1.0

Input Return Loss: 18 dB min.

Output Return Loss: 18 dB min.
Passband Flatness: ±0.3 dB (GEQL-1GHZ-000: ±0.15 dB) Flatness measured with respect to gain slope
Insertion loss for other frequencies can be determined on a linear tilt basis
All in red plastic

Specification Document Number 1500202 Rev C
1502283 Rev A

Specifications subject to change without notice

Notes
1. GEQL-1GHZ-XXX are 1.4 inches in height.
2. GEQL-1GHZ-XXX-1 are 1inch in height.

GEQL-870 Series Linear Equalizers

		Insertion Loss in dB at Frequency (MHz)										
P/N	**P/N**	**54**	**70**	**80**	**100**	**300**	**400**	**500**	**600**	**700**	**800**	**870**
GEQL-870-020	GEQL-870-020-1	2.0	2.0	2.0	1.9	1.7	1.6	1.5	1.3	1.2	1.1	1.0
GEQL-870-030	GEQL-870-030-1	3.0	3.0	2.9	2.9	2.4	2.2	1.9	1.7	1.4	1.2	1.0
GEQL-870-040	GEQL-870-040-1	4.0	3.9	3.9	3.8	3.1	2.7	2.4	2.0	1.6	1.3	1.0
GEQL-870-050	GEQL-870-050-1	5.0	4.9	4.8	4.7	3.8	3.3	2.8	2.3	1.8	1.3	1.0
GEQL-870-060	GEQL-870-060-1	6.0	5.8	5.8	5.7	4.5	3.8	3.2	2.6	2.0	1.4	1.0
GEQL-870-070	GEQL-870-070-1	7.0	6.8	6.7	6.6	5.1	4.4	3.7	3.0	2.2	1.5	1.0
GEQL-870-080	GEQL-870-080-1	8.0	7.8	7.7	7.5	5.8	5	4.1	3.3	2.4	1.6	1.0
GEQL-870-090	GEQL-870-090-1	9.0	8.8	8.7	8.5	6.5	5.6	4.6	3.6	2.6	1.7	1.0
GEQL-870-100	GEQL-870-100-1	10.0	9.7	9.6	9.4	7.2	6.1	5.0	3.9	2.9	1.8	1.0
GEQL-870-110	GEQL-870-110-1	11.0	10.7	10.6	10.3	7.9	6.7	5.5	4.3	3.1	1.8	1.0
GEQL-870-120	GEQL-870-120-1	12.0	11.7	11.5	11.3	8.6	7.3	5.9	4.6	3.3	1.9	1.0
GEQL-870-130	GEQL-870-130-1	13.0	12.6	12.5	12.2	9.3	7.8	6.4	4.9	3.5	2.0	1.0

Input Return Loss: 18dB min.
Output Return Loss: 18dB min.
Passband Flatness: ±0.3dB
Impedance: 75 Ohms
Flatness measured with respect to slope.
Insertion loss for other frequencies can be determined on a linear tilt basis.
All in purple plastic.

Specification Document Number 1500774 Rev A, 1502284 Rev A

Specifications subject to change without notice

Notes
1. GEQL-870-XXX are 1.4 inches in height.
2. GEQL-870-XXX-1 are 1inch in height.

NEQL-870 Series Linear Equalizers

	Insertion Loss in dB at Frequency (MHz)										
Model	**54**	**70**	**80**	**100**	**300**	**400**	**500**	**600**	**700**	**800**	**870**
NEQL-870-050	5.0	4.9	4.8	4.7	3.8	3.3	2.8	2.3	1.8	1.3	1.0
NEQL-870-060	6.0	5.8	5.8	5.7	4.5	3.8	3.2	2.6	2.0	1.4	1.0
NEQL-870-070	7.0	6.8	6.7	6.6	5.1	4.4	3.7	3.0	2.2	1.5	1.0
NEQL-870-080	8.0	7.8	7.7	7.5	5.8	5.0	4.1	3.3	2.4	1.6	1.0
NEQL-870-090	9.0	8.8	8.7	8.5	6.5	5.6	4.6	3.6	2.6	1.7	1.0
NEQL-870-100	10.0	9.7	9.6	9.4	7.2	6.1	5.0	3.9	2.9	1.8	1.0
NEQL-870-110	11.0	10.7	10.6	10.3	7.9	6.7	5.5	4.3	3.1	1.8	1.0
NEQL-870-120	12.0	11.7	11.5	11.3	8.6	7.3	5.9	4.6	3.3	1.9	1.0

Input Return Loss: 20dB min.
Output Return Loss: 20dB min.
Passband Flatness: ±0.3dB
All in yellow plastic

Specification Document Number 601264 Rev B

Specifications subject to change without notice

7-TG862-WC Series Linear Equalizers

Model	P/N	Insertion Loss in dB at Frequency (MHz)		Tilt in dB
		50	862	45 to 890 MHz
7-TG862/5-WC	2500826	5.0	1.0	5.2
7-TG862/6-WC	2500827	6.0	1.0	6.24
7-TG862/7-WC	2500828	7.0	1.0	7.28
7-TG862/8-WC	2500829	8.0	1.0	8.33
7-TG862/9-WC	2500830	9.0	1.0	9.37
7-TG862/10-WC	2500831	10.0	1.0	10.41
7-TG862/11-WC	2500832	11.0	1.0	11.45
7-TG862/12-WC	2500833	12.0	1.0	12.49
7-TG862/13-WC	2500852	11.0	1.0	13.52
7-TG862/14-WC	2500853	12.0	1.0	14.57
7-TG862/15-WC	2500854	11.0	1.0	15.61

Bandwidth: 45–890 MHz

Specification Document Number 871539 Rev A

Insertion Loss: 1.2 dB max.

Tilt: ±0.6 dB from 50 to 862 MHz; Flatness: ±0.2 dB

Input Return Loss: 18 dB min.; Output Return Loss: 18 dB min.

Specifications subject to change without notice

SEQ-1G Series Cable Equalizers

	Insertion Loss in dB at Frequency (MHz)											
P/N	54	85	105	222	350	450	550	650	750	870	1002	*
SEQ-1G-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEQ-1G-02	2.0	1.9	1.8	1.5	1.4	1.3	1.2	1.0	0.8	0.7	0.7	1.55
SEQ-1G-03	2.9	2.8	2.6	2.3	2.1	1.9	1.7	1.4	1.1	0.9	0.8	2.80
SEQ-1G-04	4.0	3.8	3.6	3.1	2.6	2.3	2.1	1.9	1.6	1.4	1.0	3.70
SEQ-1G-05	5.0	4.7	4.6	3.8	3.1	2.7	2.4	2.0	1.7	1.4	1.0	5.10
SEQ-1G-06	6.0	5.7	5.4	4.6	3.8	3.3	2.8	2.4	2.0	1.6	1.0	6.35
SEQ-1G-07	7.0	6.6	6.4	5.4	4.4	3.8	3.1	2.6	2.0	1.6	1.0	7.75
SEQ-1G-08	8.0	7.4	7.1	5.8	4.7	4.0	3.4	2.8	2.2	1.6	1.0	8.90
SEQ-1G-09	9.0	8.5	8.2	6.8	5.4	4.5	3.8	3.1	2.5	1.9	1.0	10.20
SEQ-1G-10	10.0	9.3	9.0	7.3	5.7	4.8	4.0	3.2	2.5	1.9	1.0	11.45
SEQ-1G-11	11.0	10.4	10.0	8.1	6.4	5.4	4.5	3.7	2.9	2.1	1.0	12.70
SEQ-1G-12	12.0	11.1	10.8	8.8	7.0	5.9	4.9	3.9	3.0	2.1	1.0	14.0
SEQ-1G-13	13.0	12.2	11.8	9.5	7.6	6.3	5.1	4.1	3.2	2.2	1.0	15.25
SEQ-1G-14	14.0	13.0	12.4	10.2	8.2	6.9	5.7	4.6	3.5	2.3	1.0	16.5
SEQ-1G-15	14.9	13.9	13.3	10.8	8.6	7.1	5.8	4.6	3.5	2.3	1.0	17.8
SEQ-1G-16	16.0	14.9	14.3	11.5	9.2	7.6	6.3	5.0	3.7	2.4	1.0	19.05
SEQ-1G-17	17.0	15.6	15.0	12.2	9.7	8.0	6.5	5.2	3.9	2.4	1.0	20.3
SEQ-1G-18	18.0	16.9	16.2	13.2	10.5	8.7	7.0	5.6	4.0	2.4	0.8	21.8
SEQ-1G-19	19.0	17.7	16.9	13.7	10/8	9.0	7.3	5.7	4.1	2.4	0.8	23.05
SEQ-1G-20	20.0	18.2	17.7	14.2	11.2	9.3	7.6	6.0	4.4	2.6	.8	24.05

Passband Flatness: ±0.3 dB (SEQ-1G-02 to 18), ±0.4 dB (SEQ-1G-19 to 20)

*dB of cable equalized at 1002 MHz

Return Loss I/O: 18 dB, min. (SEQ-1G-02 to 18), 16 dB min. (SEQ-1G-19 to 20)

Specification: 1500769 Revision C

Specifications subject to change without notice

PEQ-1G Cable Equalizers

Model	Insertion Loss (dB) @ Frequency (MHz)											Cable Loss
	54	85	105	222	350	450	550	650	750	870	1002	@ 1002 MHz
PEQ-1G-02	2.0	1.9	1.8	1.5	1.4	1.3	1.2	1.0	0.8	0.7	0.7	1.55
PEQ-1G-02	2.9	2.8	2.6	2.3	2.1	1.9	1.7	1.4	1.1	0.9	0.8	2.80
PEQ-1G-02	4.0	3.8	3.6	3.1	2.6	2.3	2.1	1.9	1.6	1.4	1.0	3.70
PEQ-1G-02	5.0	4.7	4.6	3.8	3.1	2.7	2.4	2.0	1.7	1.4	1.0	5.10
PEQ-1G-02	6.0	5.7	5.5	4.6	3.8	3.3	2.8	2.4	2.0	1.6	1.0	6.35
PEQ-1G-02	7.0	6.6	6.4	5.4	4.4	3.8	3.1	2.6	2.0	1.6	1.0	7.75
PEQ-1G-02	8.0	7.4	7.1	5.8	4.7	4.0	3.4	2.8	2.2	1.6	1.0	8.90
PEQ-1G-02	9.0	8.5	8.2	6.8	5.4	4.5	3.8	3.1	2.5	1.9	1.0	10.20
PEQ-1G-02	10.0	9.3	9.0	7.3	5.7	4.8	4.0	3.2	2.5	1.9	1.0	11.45
PEQ-1G-02	11.0	10.4	10.0	8.1	6.4	5.4	4.5	3.7	2.9	2.1	1.0	12.70
PEQ-1G-02	12.0	11.1	10.8	8.8	7.0	5.9	4.9	3.9	3.0	2.1	1.0	14.00
PEQ-1G-02	13.0	12.2	11.8	9.5	7.6	6.3	5.1	4.1	3.2	2.2	1.0	15.25
PEQ-1G-02	14.0	13.0	12.4	10.2	8.2	6.9	5.7	4.6	3.5	2.3	1.0	16.50
PEQ-1G-02	14.9	13.9	13.3	10.8	8.6	7.1	5.8	4.6	3.5	2.3	1.0	17.80
PEQ-1G-02	16.0	14.9	14.3	11.5	9.2	7.6	6.3	5.0	3.7	2.4	1.0	19.05
PEQ-1G-02	17.0	15.6	15.0	12.2	9.7	8.0	6.5	5.2	3.9	2.4	1.0	20.30
PEQ-1G-02	18.0	16.9	16.2	13.2	10.5	8.7	7.0	5.6	4.0	2.4	0.8	21.80
PEQ-1G-02	19.0	17.7	16.9	13.7	10.8	9.0	7.3	5.7	4.1	2.4	0.8	23.05
PEQ-1G-02	20.0	18.5	17.7	14.2	11.2	9.3	7.6	6.0	4.4	2.6	0.8	24.05

Notes:

Specification Document Number

1503587 Rev A

Input/Output Return Loss: 18dB Minimum, PEQ-1G-02 thru 18 (16dB Minumum, PEQ-1g-19 & 20

Flatness: ±0.3dB PEQ-1G-02 thru 18, ±0.4dB PEQ-1G-19 & 20

1 GHz Equalizer for CHP Max5000

P/N	Value
1300847	0
861020	0.5
861022	1.0
861024	1.5
1500944	3.0

GEQC-870 Cable Equalizers

	Insertion Loss in dB at Frequency (MHz)										
P/N	45	54	70	80	222	400	500	600	700	800	870
GEQC-870-080	6.9	6.8	6.6	6.5	4.9	3.5	2.9	2.2	1.5	1.0	0.7

Notes:

Specification Document Number

1501842 Rev B

1. Definition of cable signature is S-Parameter file cable loss "Times Fiber" T-10 .625" from equation.
2. dB per 100 feet is 1.87416.
3. Impedance: 75 ohm
4. Input Return Loss: 22 dB min.
5. Output Return Loss: 22 dB min.
6. Flatness: ± 0.3 dB.

Specifications subject to change without notice

GEQC-1GHz Cable Equalizers

	Insertion Loss in dB at Frequency (MHz)											
P/N	**45**	**54**	**70**	**80**	**222**	**400**	**500**	**600**	**700**	**800**	**870**	**1000**
GEQC-1GHz-050	4.7	4.6	4.5	4.4	3.5	2.7	2.3	2.0	1.7	1.4	1.2	0.7
GEQC-1GHz-070	6.4	6.2	6.0	5.9	4.6	3.5	3.0	2.5	2.0	1.6	1.4	0.7
GEQC-1GHz-090	7.8	7.6	7.5	7.3	5.7	4.2	3.5	2.8	2.1	1.6	1.3	0.8

Notes:

Specification Document Number 1502429 Rev B

1. Definition of cable signature is S-Parameter file cable loss "Times Fiber" T-10 .625" from equation.
2. dB per 100 feet is 1.87416.
3. Impedance: 75 ohm
4. Input Return Loss: 22 dB min.
5. Output Return Loss: 22 dB min.
6. Flatness: ± 0.3 dB.
7. Bandwidth: 45–1000MHz

Specifications subject to change without notice

SEQ-862 Series Cable Equalizers

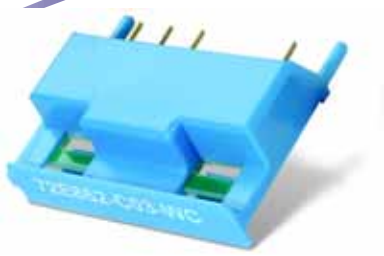
Model	**P/N**	**Insertion Loss in dB at Frequency (MHz)**									**dB of cable equalized at highest frequency**
		54	**70**	**80**	**222**	**500**	**600**	**700**	**800**	**862**	
SEQ-0	162290-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEQ-862-02	162240-25	1.9	1.9	1.9	1.8	1.4	1.3	1.2	1.1	1.0	1.0
SEQ-862-03	162240-15	2.9	2.8	2.8	2.4	1.6	1.5	1.4	1.2	1.0	2.0
SEQ-862-04	162240-08	4.0	4.0	4.0	3.2	1.9	1.6	1.4	1.2	1.0	4.0
SEQ-862-05	162240-16	4.8	4.6	4.5	3.4	2.1	1.7	1.4	1.2	1.0	5.0
SEQ-862-06	162240-17	5.9	5.6	5.6	4.2	2.6	2.1	1.6	1.2	1.0	6.5
SEQ-862-07	162240-18	6.9	6.6	6.6	5.4	3.1	2.5	1.9	1.4	1.0	7.8
SEQ-862-08	162240-10	7.8	7.5	7.4	5.6	3.4	2.7	2.1	1.4	1.0	8.7
SEQ-862-09	162240-19	8.8	8.4	8.3	6.3	3.6	2.8	2.0	1.4	1.0	10.5
SEQ-862-10	162240-20	9.6	9.1	8.9	6.9	3.8	2.9	2.1	1.4	1.0	11.0
SEQ-862-11	162240-21	10.8	10.3	10.2	7.6	4.4	3.5	2.5	1.6	1.0	13.0
SEQ-862-12	162240-11	11.6	11.1	10.8	8.2	4.7	3.7	2.7	1.7	1.0	14.5
SEQ-862-13	162240-22	12.8	12.4	12.0	8.8	5.0	3.9	2.8	1.7	1.0	15.5
SEQ-862-14	162240-23	13.6	12.9	12.7	9.6	5.2	4.0	2.9	1.8	1.0	16.5
SEQ-862-15	162240-24	14.5	13.9	13.5	10.4	5.6	4.2	3.0	1.8	1.0	17.5
SEQ-862-16	162240-12	15.3	14.7	14.3	10.8	6.1	4.7	3.3	2.0	1.0	19.0
SEQ-862-17	162240-28	17.5	16.8	16.4	12.2	6.5	5.1	3.5	2.0	1.0	21.3
SEQ-862-18	162240-29	18.4	17.5	17.2	12.7	6.8	5.2	3.6	2.0	1.0	22.4
SEQ-862-19	162240-30	19.5	18.6	18.2	13.6	7.2	5.7	3.8	2.0	1.0	23.9
SEQ-862-20	162240-31	20.3	19.4	19.0	14.2	7.6	5.8	3.9	2.0	1.0	24.9

Passband Flatness: ±0.3 dB

Specification Document Number 600438 Rev J

Return Loss I/O: 20/18 dB

Specifications subject to change without notice



7-2E862/x-WC Cable Equalizers

Model	P/N	Insertion Loss in dB in dB at Frequency (MHz)							
		54	70	85	450	550	650	750	870
7-2E862/1-WC	2500808	1.3	1.2	1.2	0.8	0.7	0.6	0.6	0.5
7-2E862/2-WC	2500809	2.0	2.0	1.9	1.1	0.9	0.8	0.7	0.5
7-2E862/3-WC	2500810	2.8	2.7	2.6	1.4	1.2	0.9	0.7	0.5
7-2E862/4-WC	2500811	3.6	3.5	3.4	1.7	1.4	1.1	0.8	0.5
7-2E862/5-WC	2500812	4.4	4.2	4.1	2.0	1.6	1.2	0.9	0.5
7-2E862/6-WC	2500813	5.1	5.0	4.8	2.3	1.8	1.4	1.0	0.5
7-2E862/7-WC	2500814	5.9	5.7	5.5	2.6	2.1	1.5	1.0	0.5
7-2E862/8-WC	2500815	6.7	6.4	6.2	2.9	2.3	1.7	1.1	0.5
7-2E862/9-WC	2500816	7.4	7.2	6.9	3.2	2.5	1.8	1.2	0.5
7-2E862/10-WC	2500817	8.2	7.9	7.6	3.5	2.7	2.0	1.3	0.4
7-2E862/11-WC	2500818	9.0	8.7	8.4	3.8	2.9	2.1	1.3	0.4
7-2E862/12-WC	2500819	9.8	9.4	9.1	4.1	3.2	2.3	1.4	0.4
7-2E862/13-WC	2500820	10.5	10.1	9.8	4.4	3.4	2.4	1.5	0.4
7-2E862/14-WC	2500821	11.3	10.9	10.5	4.8	3.6	2.6	1.6	0.4
7-2E862/15-WC	2500822	12.1	11.6	11.2	5.1	3.8	2.7	1.6	0.4
7-2E862/16-WC	2500823	13.1	12.6	12.2	5.6	4.3	3.1	2.0	0.7
7-2E862/17-WC	2500824	13.9	13.4	12.9	5.9	4.5	3.2	2.0	0.7
7-2E862/18-WC	2500825	14.6	14.1	13.6	6.2	4.8	3.4	2.1	0.7
7-2E862/19-WC	2500981	15.4	14.8	14.3	6.5	5.0	3.5	2.2	0.7
7-2E862/20-WC	2500978	16.2	15.6	15.0	6.8	5.2	3.7	2.3	0.6
7-2E862/21-WC	2500982	17.0	16.3	15.7	7.1	5.4	3.8	2.3	0.6
7-2E862/22-WC	2500983	17.7	17.1	16.5	7.4	5.6	4.0	2.4	0.6
7-2E862/23-WC	2500979	18.5	17.8	17.2	7.7	5.9	4.1	2.5	0.6
7-2E862/24-WC	2500984	19.3	18.6	17.9	8.0	6.1	4.3	2.6	0.6
7-2E862/25-WC	2500985	20.1	19.3	18.6	8.3	6.3	4.4	2.6	0.6
7-2E862/26-WC	2500980	20.8	20.0	19.3	8.6	6.5	4.6	2.7	0.6

Specifications subject to change without notice

E862 Equalizers

Model	P/N	Insertion Loss in dB at Frequency (MHz)	
		47	862
E862/02	PH0.40391	2	1
E862/04	PH0.40401	4	1
E862/06	PH0.40411	6	1
E862/08	PH0.40421	8	1
E862/10	PH1.40431	10	1
E862/12	PH0.40821	12	1
E862/14	PH0.40831	14	1
E862/16	PH0.40841	16	1

Passband Flatness: ±0.2 dB

Return Loss: <20 dB (47 MHz)–1.5 dB/oct.

Specifications subject to change without notice

SEQ-750 Series Cable Equalizers

Model	P/N	Insertion Loss in dB at Frequency (MHz)									dB of cable equalized at highest freq.
		54	70	80	222	350	450	550	650	750	
SEQ-0	162290-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEQ-750-02	162389-02	2.0	2.0	2.0	1.8	1.4	1.3	1.3	1.2	1.0	1.5
SEQ-750-03	162389-03	3.0	2.8	2.7	2.4	1.9	1.7	1.5	1.3	1.0	2.5
SEQ-750-04	162389-04	3.9	3.9	3.8	3.1	2.4	2.0	1.7	1.4	1.0	4.0
SEQ-750-05	162389-05	4.9	4.6	4.5	3.5	2.9	2.3	1.8	1.4	1.0	5.0
SEQ-750-06	162389-06	5.9	5.7	5.6	4.2	3.3	2.7	2.0	1.5	1.0	6.5
SEQ-750-07	162389-07	7.0	6.8	6.6	5.0	3.6	2.8	2.0	1.6	1.0	8.0
SEQ-750-08	162389-08	8.0	7.9	7.6	5.5	4.2	3.3	2.5	1.8	1.0	9.0
SEQ-750-09	162389-09	9.0	8.8	8.6	6.3	4.8	3.8	2.7	2.0	1.0	10.5
SEQ-750-10	162389-10	9.8	9.4	9.2	6.7	5.0	3.8	2.8	2.0	1.0	12.0
SEQ-750-11	162389-11	11.0	10.5	10.2	7.5	5.5	4.2	3.0	2.0	1.0	13.5
SEQ-750-12	162389-12	11.8	11.3	11.0	8.1	6.0	4.6	3.3	2.2	1.0	14.5
SEQ-750-13	162389-13	12.9	12.4	12.2	8.9	6.6	5.1	3.7	2.5	1.0	16.0
SEQ-750-14	162389-14	14.0	13.5	13.2	9.7	6.9	5.3	3.8	2.5	1.0	17.0
SEQ-750-15	162389-15	14.9	14.3	13.9	10.1	7.5	5.8	4.3	2.6	1.0	18.5
SEQ-750-16	162389-16	15.8	14.9	14.5	10.5	8.0	6.1	4.4	2.7	1.0	20.0
SEQ-750-17	162389-17	16.8	16.0	15.6	11.3	8.2	6.2	4.4	2.6	1.0	21.0
SEQ-750-18	162389-18	17.9	17.1	16.6	11.9	8.6	6.6	4.6	2.6	1.0	22.4
SEQ-750-19	162389-19	18.8	17.8	17.4	12.3	9.1	6.9	4.8	2.7	1.0	23.7
SEQ-750-20	162389-20	19.8	19.0	18.5	13.2	9.5	7.2	5.0	2.8	1.0	25.0
SEQ-750-21	162389-21	20.8	19.8	19.3	13.4	10.0	7.5	5.2	2.9	1.0	26.3
SEQ-750-2-2	162433-02	2.8	2.8	2.8	2.5	2.3	2.2	2.1	2.1	2.0	1.1
SEQ-750-4-2	162469-02	4.5	4.4	4.3	3.6	3.1	2.8	2.5	2.2	2.0	3.3
SEQ-750-4-3	162469-03	5.5	5.4	5.3	4.7	4.1	3.8	3.5	3.2	3.0	3.3
SEQ-750-5-5	162469-05	8.9	8.6	8.6	7.6	6.9	6.3	5.8	5.4	5.0	5.0

Passband Flatness: ±0.3 dB

Specification Document Number 600563
Revision J

Return Loss I/O: 18/16 dB

Specifications subject to change without notice

MEQ-42 and MEQT-42 Series Return Cable Equalizers

Model	P/N	Insertion Loss in dB at Frequency (MHz)		dB of Cable Equalized at Frequency (MHz)					
		5	42	42	300	400	450	550	750
MEQ-42-2	162395-02	3.0	1.0	3.0	8.0	9.4	10.2	11.3	13.4
MEQ-42-3	162395-03	4.0	1.0	4.6	12.6	15.0	15.8	17.7	21.0
MEQ-42-4	162395-04	5.0	1.0	6.1	16.7	19.4	20.7	23.0	27.0
MEQ-42-5	162395-05	6.0	1.0	7.6	20.4	23.8	25.4	28.3	33.0
MEQ-42-6	162395-06	7.0	1.0	9.1	24.6	29.0	30.4	34.0	39.6
MEQ-42-7	162395-07	8.0	1.0	10.6	27.0	31.5	33.0	36.4	45.5
MEQT-42-2	162396-02	3.6	2.5	3.2	9.0	10.5	11.2	12.5	14.9
MEQT-42-3	162396-03	5.6	2.5	4.7	13.0	15.2	16.2	18.1	21.5
MEQT-42-4	162396-04	6.8	2.5	6.5	18.0	21.0	22.4	25.0	29.8
MEQT-42-5	162396-05	8.4	2.5	9.0	25.0	29.2	31.1	34.7	41.4
MEQT-42-6	162396-06	8.7	2.5	9.4	26.0	30.4	32.4	36.1	43.1
MEQT-42-7	162396-07	10.1	2.5	11.5	32.0	37.4	39.8	44.5	53.0

Passband Flatness: 0.2 dB, P–V (MEQ-42) 0.3 dB, P–V (MEQT-42
Return Loss I/O: 18/16 dB

MEQ-42 Specification Document Number 600540 Rev C

MEQT-42 Specification Document Number 600595 Rev D

Specifications subject to change without notice

MEQ-55 and MEQT-55 Series Return Cable Equalizers

Model	P/N	Insertion Loss in dB at Frequency (MHz)		dB of cable equalized at Frequency (MHz)					
		5	55	55	300	400	450	550	750
MEQ-55-2	162464-02	1.9	1.0	1.2	3.0	3.5	3.7	4.2	5.0
MEQ-55-3	162464-03	2.7	1.0	2.5	6.0	7.0	7.5	8.3	9.9
MEQ-55-4	162464-04	3.6	1.0	3.7	9.0	10.5	11.2	12.5	14.9
MEQ-55-5	162464-05	4.5	1.0	4.9	12.0	14.0	14.9	16.7	19.9
MEQ-55-6	162464-06	5.6	1.0	6.6	16.0	18.7	19.9	22.2	26.5
MEQ-55-7	162464-07	6.8	1.0	8.2	20.0	23.4	24.9	27.8	33.1
MEQT-55-2	162465-02	4.2	2.5	2.5	6.0	7.0	7.5	8.3	9.9
MEQT-55-3	162465-03	5.1	2.5	3.7	9.0	10.5	11.2	12.5	14.9
MEQT-55-4	162465-04	6.0	2.5	4.9	12.0	14.0	14.9	16.7	19.9
MEQT-55-5	162465-05	7.1	2.5	6.6	16.0	18.7	19.9	22.2	26.5
MEQT-55-6	162465-06	8.3	2.5	8.2	20.0	23.4	24.9	27.8	33.1
MEQT-55-7	162465-07	9.5	2.5	9.9	24.0	28.0	29.9	33.3	39.8

Passband Flatness: 0.2 dB, P–V
Return Loss I/O: 18/16 dB

MEQ-55 Specification Document Number 600695 Rev 50

MEQT-55 Specification Document Number 600696 Rev 50

Specifications subject to change without notice

MEQ-65 and MEQT-65 Series Return Cable Equalizers

Model	P/N	Insertion Loss in dB at Frequency (MHz)		dB of Cable Equalized at Frequency (MHz)					
		5	65	65	300	400	450	550	750
MEQ-65-02	162434-02	2.0	1.0	1.3	3.0	3.5	3.7	4.2	5.0
MEQ-65-03	162434-03	2.9	1.0	2.7	6.0	7.0	7.5	8.3	9.9
MEQ-65-04	162434-04	3.9	1.0	4.0	9.0	10.5	11.2	12.5	14.9
MEQ-65-05	162434-05	5.2	1.0	5.8	13.0	15.2	16.2	18.1	21.5
MEQ-65-06	162434-06	6.2	1.0	7.1	16.0	18.7	19.9	22.2	26.5
MEQ-65-07	162434-07	7.1	1.0	8.5	19.0	22.2	23.6	26.4	31.5
MEQT-65-02	162435-02	4.4	2.5	2.7	6.0	7.0	7.5	8.3	9.9
MEQT-65-03	162435-03	5.4	2.5	4.0	9.0	10.5	11.2	12.5	14.9
MEQT-65-04	162435-04	6.7	2.5	5.8	13.0	15.2	16.2	18.1	21.5
MEQT-65-05	162435-05	7.7	2.5	7.1	16.0	18.7	19.9	22.2	26.5
MEQT-65-06	162435-06	8.6	2.5	8.5	19.0	22.2	23.6	26.4	31.5
MEQT-65-07	162435-07	9.6	2.5	9.8	22.0	25.7	27.4	30.6	36.4

Passband Flatness: MEQ-65 (±0.1 dB) MEQT-65 (±0.2 dB)
Return Loss I/O: 18/16 dB

MEQ-65 Specification Document Number 600615 Rev B

MEQT-65 Specification Document Number 600616 Rev B

Specifications subject to change without notice

E606

P/N	PAD Value	Insertion Loss in dB at Frequency (MHz)	
		47	606
PH0.42171	2	2	1
PH0.42161	4	4	1
PH0.42151	6	6	1
PH0.41052	8	8	1
PH0.41062	10	10	1
PH0.41072	12	12	1
PH0.41082	14	14	1
PH0.41092	16	16	1

Passband Flatness: (2–16 dB) ±0.2 dB, (18–20 dB) ±0.25 dB
Return Loss: <20 dB (47 MHz)–1.5 dB/oct.
Dimensions in L x H: 30 x 37.7 mm
All in blue plastic.

Specifications subject to change without notice

7-REF42/x-WC

Model	P/N	PAD Value	Insertion Loss in dB at Frequency (MHz)						
			5	7	13	19	25	33	42
7-REF42/1-WC	2500922	1	1.4	1.3	1.1	1.0	0.9	0.8	0.7
7-REF42/2-WC	2500923	2	1.8	1.7	1.4	1.1	1.0	0.8	0.7
7-REF42/3-WC	2500924	3	2.6	2.4	2.0	1.6	1.4	1.0	0.7
7-REF42/4-WC	2500925	4	3.4	3.1	2.6	2.2	1.7	1.2	0.7
7-REF42/5-WC	2500926	5	4.1	3.7	3.1	2.5	2.0	1.4	0.7
7-REF42/6-WC	2500927	6	4.6	4.1	3.4	2.7	2.2	1.3	0.7
7-REF42/7-WC	2500928	7	5.3	5.0	4.0	3.2	2.4	1.5	0.7
7-REF42/8-WC	2500929	8	6.0	5.4	4.2	3.5	2.6	1.6	0.7
7-REF42/9-WC	2500930	9	6.6	5.8	4.7	3.7	2.7	1.7	0.7

All in blue plastic.

7-REF42/x-WC

Specifications subject to change without notice

7-REF55/x-WC

			Insertion Loss in dB at Frequency (MHz)								
Model	**P/N**	**PAD Value**	**5**	**7**	**13**	**19**	**25**	**33**	**42**	**49**	**55**
7-REF55/1-WC	2500931	1	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.4
7-REF55/2-WC	2500932	2	1.8	1.7	1.5	1.3	0.9	0.7	0.6	0.5	0.4
7-REF55/3-WC	2500933	3	2.3	2.2	1.8	1.5	1.3	0.9	0.6	0.3	0.4
7-REF55/4-WC	2500934	4	3.3	3.0	2.6	2.2	1.8	1.4	1.0	0.8	0.5
7-REF55/5-WC	2500935	5	4.1	3.8	3.2	2.7	2.2	1.7	1.2	0.9	0.5
7-REF55/6-WC	2500936	6	4.8	4.4	3.7	3.0	2.5	2.0	1.3	0.9	0.5
7-REF55/7-WC	2500937	7	5.2	4.8	3.9	3.2	2.7	2.1	1.4	1.0	0.5
7-REF55/8-WC	2500938	8	6.2	5.7	4.7	4.0	3.2	2.4	1.6	1.0	0.6
7-REF55/9-WC	2500939	9	6.9	6.3	5.3	4.4	3.5	2.7	1.8	1.3	0.6
7-REF55/10-WC	2500940	10	7.6	7.0	5.7	4.8	3.7	2.9	1.9	1.3	0.6

All in blue plastic.

Specifications subject to change without notice

7-REF65/x-WC

			Insertion Loss in dB at Frequency (MHz)								
Model	**P/N**	**PAD Value**	**5**	**8**	**20**	**29**	**36**	**42**	**56**	**63**	**65**
7-REF65/1-WC	2500941	1	1.3	1.2	1.0	0.9	0.8	0.7	0.6	0.6	0.6
7-REF65/2-WC	2500942	2	2.1	1.9	1.5	1.3	1.2	1.0	0.7	0.7	0.6
7-REF65/3-WC	2500943	3	2.7	2.5	2.2	1.9	1.5	1.1	0.7	0.7	0.6
7-REF65/4-WC	2500944	4	3.5	3.2	2.7	2.4	1.9	1.3	0.8	0.7	0.6
7-REF65/5-WC	2500945	5	4.2	3.8	3.2	2.5	2.1	1.5	0.9	0.7	0.6
7-REF65/6-WC	2500946	6	4.8	4.1	3.2	2.8	2.2	1.6	1.1	0.7	0.6
7-REF65/7-WC	2500947	7	5.8	5.3	3.9	3.0	2.5	2.1	1.3	0.9	0.6
7-REF65/8-WC	2500948	8	6.5	5.8	4.2	3.6	2.7	2.2	1.3	1.0	0.6
7-REF65/9-WC	2500949	9	6.9	6.2	5.0	3.8	3.0	2.2	1.4	1.0	0.6
7-REF65/10-WC	2500950	10	8.0	7.1	5.2	1.0	3.2	2.7	1.5	1.0	0.6
7-REF65/11-WC	2500951	11	8.6	7.9	5.6	4.4	3.4	2.8	1.5	1.0	0.6

All in blue plastic.

Specifications subject to change without notice

Cable Simulators and Cable Equivalents Specifications

Cable simulators provide sloped attenuation of RF signals with the greatest attenuation occurring at the highest frequency. They are plug-in fixed units, which are used in place of equalizers in the forward path in those cases where the cable spacing is less than the amount of equalization built into the amplifier.

SCS-1G Series Cable Simulators

P/N	Insertion Loss in dB at Frequency (MHz)								dB of Cable Simulated at Frequency (MHz)							
	50	70	80	550	750	806	862	1002	350	450	550	650	750	806	862	1002
SCS-1G-02	1.0	1.0	1.1	1.6	1.8	1.9	1.9	2.0	0.7	0.8	1.0	1.1	1.2	1.2	1.3	1.3
SCS-1G-03	1.0	1.1	1.1	2.3	2.6	2.7	2.8	3.0	1.5	1.7	1.9	2.2	2.3	2.5	2.6	2.5
SCS-1G-04	1.0	1.1	1.2	2.9	3.4	3.6	3.7	4.0	2.2	2.6	2.9	3.2	3.5	3.8	3.9	3.8
SCS-1G-05	1.0	1.2	1.3	3.6	4.3	4.4	4.6	5.0	2.9	3.4	3.9	4.3	4.7	5.0	5.2	5.0
SCS-1G-06	1.0	1.2	1.3	4.2	5.1	5.3	5.5	6.0	3.6	4.2	4.8	5.3	5.7	6.2	6.4	6.3
SCS-1G-07	1.0	1.3	1.4	4.9	5.9	6.2	6.4	7.0	4.7	5.4	6.0	6.6	7.1	7.4	7.7	7.6
SCS-1G-08	1.0	1.3	1.5	5.5	6.7	7.0	7.3	8.0	5.4	6.2	6.9	7.6	8.2	8.6	8.9	8.8
SCS-1G-09	1.0	1.4	1.5	6.1	7.5	7.9	8.2	9.0	6.2	7.1	7.9	8.7	9.4	9.8	10.2	10.0
SCS-1G-10	1.0	1.4	1.6	6.8	8.3	8.7	9.1	10.0	7.0	8.0	8.9	9.8	10.6	11.1	11.5	11.3
SCS-1G-11	1.0	1.5	1.7	7.4	9.2	9.6	10.0	11.0	7.8	8.9	9.9	10.9	11.8	12.3	12.8	12.5
SCS-1G-12	1.0	1.5	1.7	8.1	10.0	10.5	10.9	12.0	8.5	9.8	11.0	12.0	13.1	13.6	14.1	13.8

Passband Flatness: 0.4 dB, P-V

Specification 1500883 Rev A

Return Loss I/O: 18/16 dB

Specifications subject to change without notice

SCS-862 Series Cable Simulators

Model	P/N	Insertion Loss in dB at Frequency (MHz)								dB of Cable Simulated at Frequency (MHz)					
		54	70	80	222	550	750	806	862	300	450	550	750	806	862
SCS-862-02	162451-02	1.0	1.0	1.0	1.3	1.7	1.9	2.0	2.0	0.7	0.8	1.0	1.2	1.2	1.3
SCS-862-03	162451-03	1.0	1.0	1.0	1.6	2.4	2.8	2.9	3.0	1.3	1.7	1.9	2.3	2.5	2.6
SCS-862-04	162451-04	1.0	1.1	1.2	1.9	3.2	3.8	3.9	4.0	2.0	2.6	2.9	3.5	3.8	3.9
SCS-862-05	162451-05	1.0	1.0	1.1	2.3	3.9	4.7	4.9	5.0	2.7	3.4	3.9	4.7	5.0	5.2
SCS-862-06	162451-06	1.0	1.0	1.2	2.6	4.6	5.5	5.8	6.0	3.3	4.2	4.8	5.7	6.2	6.4
SCS-862-07	162451-07	1.0	1.2	1.4	3.1	5.2	6.3	6.6	7.0	4.3	5.4	6.0	7.1	7.4	7.7
SCS-862-08	162451-08	1.0	1.3	1.4	3.3	6.0	7.3	7.6	8.0	5.0	6.2	6.9	8.2	8.6	8.9
SCS-862-09	162451-09	1.0	1.3	1.6	3.7	6.6	8.1	8.5	9.0	5.7	7.1	7.9	9.4	9.8	10.2
SCS-862-10	162451-10	1.0	1.4	1.6	3.9	7.3	9.0	9.4	10.0	6.4	8.0	8.9	10.6	11.1	11.5
SCS-862-11	162451-11	1.0	1.5	1.7	4.4	8.0	10.0	10.3	11.0	7.1	8.9	9.9	11.8	12.3	12.8
SCS-862-12	162451-12	1.0	1.5	1.7	4.8	8.7	10.9	11.4	12.0	7.9	9.8	11.0	13.1	13.6	14.1
SCS-862-13	162451-13	1.0	1.5	1.8	5	9.5	11.9	12.4	13.0	8.6	10.7	12.0	14.3	14.8	15.4
SCS-862-14	162451-14	1.0	1.6	1.9	5.5	10.0	12.9	13.4	14.0	9.3	11.5	12.9	15.4	16.0	16.6
SCS-862-15	162451-15	1.0	1.7	2.0	5.9	10.6	13.7	14.3	15.0	10.0	12.4	13.9	16.6	17.3	17.9

Passband Flatness: 0.4 dB, P-V (-2 through -13); 0.6 dB, P-V (-14 and -15)

Specification Document Number 600662 Rev B

Return Loss I/O: 8/16 dB (-2 through -13); 16/16 dB (-14 and -15)

Specifications subject to change without notice

SCS-750 Series Cable Simulators

Model	P/N	Insertion Loss in dB at Frequency (MHz)									dB of Cable Simulated at Freq. (MHz)				
		54	70	80	222	350	450	550	650	750	350	450	550	650	750
SCS-750-02	162391-02	1.0	1.0	1.0	1.3	1.5	1.6	1.7	1.8	1.8	0.7	0.8	0.9	1.0	1.1
SCS-750-03	162391-03	1.0	1.0	1.0	1.6	2.0	2.2	2.4	2.6	2.8	1.5	1.7	1.9	2.1	2.3
SCS-750-04	162391-04	1.0	1.0	1.1	1.9	2.4	2.7	3.0	3.3	3.5	2.2	2.5	2.8	3.0	3.3
SCS-750-05	162391-05	1.0	1.1	1.2	2.3	3.0	3.4	3.9	4.3	4.6	3.2	3.6	4.0	4.4	4.8
SCS-750-06	162391-06	1.0	1.1	1.3	3.1	3.9	4.5	5.1	5.7	6.2	4.6	5.2	5.8	6.4	7.0
SCS-750-07	162391-07	1.0	1.1	1.3	3.3	4.2	4.9	5.6	6.2	6.8	5.0	5.7	6.4	7.0	7.6
SCS-750-08	162391-08	1.0	1.1	1.5	3.4	4.7	5.6	6.3	7.1	7.8	5.9	6.7	7.5	8.2	9.0
SCS-750-09	162391-09	1.0	1.2	1.5	4.0	5.4	6.4	7.3	8.2	9.0	6.9	7.9	8.8	9.7	10.5
SCS-750-10	162391-10	1.0	1.2	1.5	4.1	5.7	6.7	7.7	8.7	9.5	7.4	8.4	9.4	10.4	11.2
SCS-750-11	162391-11	1.0	1.2	1.5	4.3	6.4	7.6	8.7	9.8	10.7	8.4	9.6	10.7	11.9	12.8
SCS-750-12	162391-12	1.1	1.6	2.0	5.1	7.0	8.3	9.5	10.7	11.8	9.4	10.7	11.9	13.2	14.2
SCS-750-13	162391-13	1.1	1.6	2.0	5.4	7.5	8.9	10.2	11.6	12.7	10.1	11.6	12.9	14.3	15.4
SCS-750-14	162391-14	1.1	1.6	1.7	5.7	8.2	9.8	11.3	12.8	14.1	11.3	12.9	14.4	15.9	17.2
SCS-750-15	162391-15	1.1	1.6	1.7	5.8	8.7	10.4	12.0	13.6	15.0	12.1	13.8	15.4	17.0	18.4

Passband Flatness: 0.6dB, P–V
Return Loss I/O: 18/16dB

Specification Document Number 600647 Revision B

Specifications subject to change without notice

7-2E862Cx-WC Cable Simulators

Model	P/N	Insertion Loss in dB at Frequency (MHz)								
		45	54	70	85	450	550	650	750	870
7-2E862C1-WC	2500834	0.2	0.2	0.3	0.3	0.7	0.8	0.8	0.9	1.0
7-2E862C2-WC	2500835	0.2	0.2	0.3	0.4	1.2	1.3	1.5	1.6	1.8
7-2E862C3-WC	2500836	0.2	0.3	0.4	0.4	1.7	1.9	2.1	2.4	2.6
7-2E862C4-WC	2500837	0.2	0.3	0.4	0.5	2.2	2.5	2.8	3.1	3.4
7-2E862C5-WC	2500838	0.3	0.5	0.6	0.7	2.8	3.2	3.6	3.9	4.3
7-2E862C6-WC	2500839	0.6	0.8	1.0	1.1	3.6	4.1	4.5	5.0	5.4
7-2E862C7-WC	2500840	0.7	0.9	1.1	1.3	4.2	4.8	5.3	5.8	6.3
7-2E862C8-WC	2500841	0.9	1.1	1.3	1.5	4.8	5.5	6.1	6.6	7.3
7-2E862C9-WC	2500842	1.1	1.3	1.6	1.8	5.5	6.2	6.9	7.6	8.3
7-2E862C10-WC	2500843	1.3	1.5	1.8	2.1	6.2	7.0	7.8	8.5	9.3
7-2E862C11-WC	2500844	1.5	1.7	2.1	2.4	6.9	7.8	8.6	9.4	10.3
7-2E862C12-WC	2500845	1.7	2.0	2.3	2.7	7.6	8.6	9.5	10.3	11.3

Specifications subject to change without notice

CE862 Cable Equivalent

Model	P/N	Insertion Loss	
		47MHz	862MHz
CE862/2	PH0.42351	1	2
CE862/4	PH0.42361	1	4
CE862/6	PH0.42371	1	6
CE862/8	PH0.42381	1	8

Specifications subject to change without notice

Input configuration modules and Output Distribution Accessories Specifications

Directional couplers, also known as TAPs, split the RF signal into unequal portions, routing the low loss and high loss signals to different legs of the plug-in location. By rotating SDC8, SDC12, 7-DC-8, and 7-DC-12 180°, the signal flow is reversed. Splitters deliver half the RF signal to each leg of the plug-in location. The SPB-0 and NPB-0 are throughput plug-ins that do not effect the signal.

Splitter

Model	P/N
S3.5/3.5	PH0.40131

Bandwidth: 5-862 MHz
Insertion Loss: 2 x 3.8 dB (max., 862 MHz)
Flatness: ±0.25 dB
Return Loss: >20 dB (47 MHz) to 1.5 dB/oct. (>20 dB (<47 MHz))
Isolation (out 1–out 2): >20 dB
Dimensions L x H: 30 x 37.7 mm

Specifications subject to change without notice.

Directional Coupler

Model	P/N	Insertion Loss: Out 1/Out 2, dB
TAP10/1	KF312679	10.5/1.5
TAP1/10	KF312689	1.5/10.5
TAP8/1.5	ph0.40491	2/8.5
TAP16/1	KF313121	16.5/1
TAP1/16	KF313124	1/16.5

Bandwidth: 5-862 MHz
Flatness: ±0.25 dB
Return Loss: >20 dB (47 MHz) to 1.5 dB/oct. (>20 dB (<47 MHz))
Isolation (out 1–out 2): >20 dB
Dimensions L x H: 30 x 37.7 mm

Specifications are subject to change without notice.

Splitters and Directional Couplers (TAPs)

Model	P/N	Description	Insertion Loss
7-DC-4-5-870-WC	2501157	Splitter	4/4 dB
7-DC-8-5-870-WC	2501158	Directional coupler (TAP)	8/2.6 dB (±0.5 dB)
7-DC-12-5-870-WC	2501159	Directional coupler (TAP)	11.9/1.8 dB (±0.5 dB)

Specifications subject to change without notice

S-Series Distribution Accessories

Accessory	P/N	Description	Insertion Loss in dB at Frequency (MHz)									
			5	40	54	70	80	222	550	750	862	1002
NPB-0	NPB-xxx	jumper	0	0	0	0	0	0	0	0	0	0
SPB-0	162260-xx	jumper	0	0	0	0	0	0	0	0	0	0
SS-1000-2	162399-01	splitter	3.5	3.3	3.3	3.3	3.3	3.5	3.7	3.8	4.0	4.0
SDC-1000-8	162400-01	directional coupler	1.6 8.2	1.4 8.1	1.4 8.1	1.4 8.1	1.5 8.1	1.6 8.2	1.8 8.2	2.0 8.2	2.6 8.5	2.7 8.6
SDC-1000-12	162400-02	directional coupler	0.9 12.3	0.7 12.3	0.7 12.3	0.7 12.3	0.7 12.3	0.8 12.3	1.0 12.3	1.3 12.3	1.7 12.4	1.8 12.5
SS-1000-2RTP	1503424-001	Splitter	3.5 4.2	3.3 3.8	3.3 3.8	3.3 3.8	3.3 3.8	3.5 4.1	3.7 4.7	3.8 5.2	4.0 5.4	4.2 5.8
SDC-1000-8RTP	1503423-001	Coupler 8dB w/ Rev TP	1.6 8.2	1.4 8.2	1.4 8.2	1.4 8.2	1.4 8.2	1.4 8.2	2.0 7.6	2.5 7.5	2.7 7.6	3.0 8.2
SDC-1000-12RTP	1503423-002	Coupler 12dB w/ Rev TP	1.6 12.3	1.4 12.3	1.4 12.3	1.4 12.3	1.4 12.3	1.4 12.3	1.9 11.6	2.4 11.6	2.6 11.9	2.9 12.3

Passband Flatness: 0.5 dB, P–V

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The recessed groove indicates the high loss leg. These accessories are reversible.

Specifications subject to change without notice

Diplex Filters Specifications

Diplex filters split the RF frequency, routing the low frequency to the return path and the high frequency to the forward path, with minimal signal loss. Select the diplex filter with the same frequency split as your network.

Diplex Filter

Model	P/N
D30/47	PH0.40031
D42/54	1142134
D55/70	KF312012
D65/85	PH0.40063

Specifications subject to change without notice

Active and Passive Return Channel Amplifier

The module RCA3-Z is a universal reverse path amplifier for Flex Max 400 and Flex Max 500 amplifiers. The functional adjustment possibilities enable a universal usage in HFC networks. All adjustments can be performed by Amini PADs. A switchable attenuator enables a reduction of the gain by 6 dB. The roll off caused by the diplex filters is compensated by

special circuitry, where the gain at the higher frequency is increased by 1.5 dB. The whole range from 5 MHz to 30/42/65 MHz can be used for reverse path signals.

Active Return Channel Amplifiers

Model	P/N	
RCA3-Z 25/65	KF310168	
RCA3-Z 25/55	KF312011	
RCA3-Z 25/42	KF310164	
RCA3-Z 25/30	KF310160	
Bandwidth		5–30 MHz
Gain (module input to output)		
Flatness		±0.25 dB
Combiner insertion loss		< 4.5 dB
Return Loss		≤ 20 dB
Noise Figure		< 6 dB
Attenuator		
Input/Output		Amini plug-in modules 0,1,2,...20 dB
Interstage		(switchable with a Jumper) 0,6 dB
Equalizer (5-65 MHz)		Amini plug-in modules 0,1,2,...20 dB
Power Consumption		< 1.5 W
Power Supply		24 VDC/60 mA
Operating Temperature		-20°C to 75°C
Dimensions L x H		75 x 42 mm

Specifications subject to change without notice

Passive Return Channel Equalizer

Model	P/N	
RCEQ-Z-2/65	1096615	
Bandwidth		5–65 MHz
Return Loss		≤ 20 dB
Insertion Loss: 1 input/2 input config.		≤ 1.0 dB @ 65 MHz/≤ 5.0 dB @ 65 MHz
Slope: delta insertion loss (5–65 MHz)		Amini plug-in modules (1dB steps) 0–20 dB (measured in station Max-Amplif. incl. D65/85 MHz)
flatness:		≤ 0.25 dB
Attenuator		Amini plug-in modules (1dB steps)
Power Consumption		< 1.5 W
Input Splitter		on board 1 input/2 input config. via bridges
Dimensions L x H		75 x 42 mm

Specifications subject to change without notice

Automatic Gain Control (AGC) Modules

AGC Modules

Model	P/N
AGC030/ 191.25	1186424
AGC030/ 189.25	1116534
AGC030/ 182.25	1129859

AGC Modules

Model	P/N
AGC030/ 175.25	1300238

Specifications subject to change without notice

Frequency Correction Modules

Within a longer cascade of amplifiers and passive network components it can be necessary to correct irregularities of the frequency response. The CM862/xx is a plug-in module that equalizes the frequency response of longer cascades or non-optimal transmitter-node combinations with two bumpers and two debumpers, which can be shifted in frequency and amplitude. One of each is responsible for the high and low frequency ranges. An additional fixed bump in the CM862/85 MHz, CM862/54 MHz, and CM862/47 MHz modules compensates the roll off of 4 diplexers (i.e. one CM862 is enough for 2 amplifiers).

CM862 System Equalizer

Model	P/N
CM862/00	KF311194
CM862/85	1300573
CM862/54	KF311189
CM862/47	KF310661

Specifications subject to change without notice

Reference Carrier Generator Modules

Reference Carrier Generator

Model	P/N
RCG-65	1177640
RCG-42	1300505

Specifications subject to change without notice

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