SSNT TYPE A
1 OUTPUT PASSIVE RETURN

SSNT TYPE B
1 OUTPUT ACTIVE RETURN

SSNT TYPE C
4 OUTPUT PASSIVE RETURN

SSNT - TYPE A, B, and C

House Amplifiers

The ACI Communications Home Amplifiers with a MoCA filter is a house-type active device that delivers superior performance up to 1 GHz in today's expanding RF telecommunications networks. This device has a built in LPF MoCA filter that prevents the MoCA signals (1125-1525 MHz) getting out of the internal home network. The internal MoCA LPF filter allows for in-home networking between the modem, eMTA, set top-boxes and other in-home networking devices such as game consoles, computers, ect on the Type C 4-port Home Amplifiers.

Features

- 1002 MHz bandwidth
- MoCA LFP filter for in-home networking
- Superior performance specifications for full channel loading at design bandwidth
- Die-cast aluminum housing for excellent heat dissipation and corrosion protection
- High performance "F" connectors – SCTE compliant
- Remote or co-located powering capability
- Perfect for both indoor and outdoor applications
- 6 Kv combination wave surge protection on amplifier – all ports (IEEE587 category B3)
- 6 Kv combination wave surge protection on the transformer (IEEE587 category B3).
- Universal range AC power pack ensures normal operation under widely varying AC inputs

SSNT House Amplifiers
Type A, B & C

STATION PARAMETERS:	Type		TYPE A				TYPE B				TYPE C			
	Part Number		SSNT-1-S4A1				SSNT-1-S4B1				SSNT-4-S4C1			
	Description	UNITS	Single output with passive reverse				Single output with active reverse				Four outputs with passive reverse			
FORWARD		MHz	54	552	750	1002	54	552	750	1002	54	552	750	1002
Gain	Min	dB	10.50	12.50	13.00	14.00	10.50	12.50	13.00	14.00	2.50	5.25	5.75	6.50
	Ideal	dB	11.50	13.50	14.00	15.00	11.50	13.50	14.00	15.00	3.50	6.25	6.75	7.50
	Max	dB	12.50	14.50	15.00	16.00	12.50	14.50	15.00	16.00	4.50	7.25	7.75	8.50
Return loss - All ports power on	Min	-dB	18				18				18			
Output to output isolation - all ports	Worst case frequency	dB	≥ 25				≥ 25				≥ 25			
Noise figure	Worst case	dB	≥ 9				≥ 10				≥ 12			
Group Delay (n = Sec / 3.58 MHz)														
Channel 2-4	Max	ns	30				30				31			
Channel 5 & up	Max	ns	5				5				5			
CHANNEL LOADING			79 each VSB-AM video signals from 54 MHz to 552 MHz, not including channels A-3, A-4, and A-5; together with 75 each, 256-QAM signals from 552 MHz to 1002 MHz operated at average 6 MHz-band power levels of 6 dB below the peak levels of the VSB-AM signals											
Station Input Levels - See Note 1														
Input Levels - Tap-on-bridger-port	Case 1	dBmV	+18 dBmV @ 1002 MHz, +6 dBmV @ 54 MHz											
Input Levels - Flat amp inputs	Case 2	dBmV	+12 dBmV @ 1002 MHz, +12 dBmV @ 54 MHz											
Input Levels - Tap-at-end-of-line	Case 3	dBmV	+8 dBmV @ 1002 MHz, +16 dBmV @ 54 MHz											
Station Distortions (Worst Case)														
Composite Triple Beat (CTB)		-dBc	72				72				72			
Composite Second Order (CSO)		-dBc	62				62				62			
Cross Modulation (XMOD)		-dBc	74				74				74			
CNN @ 55.25 MHz		dBc	54				54				54			
CNN @ 999 MHz		-dBc	57				57				57			
HUM Modulation	Time Domain method	-dBc	75				75				75			
REVERSE		MHz	5	10	40	42	5	10	40	42	5	10	40	42
Gain	Min	dB	-2.50	-1.50	-1.50	-2.00	1.50	3.50	4.00	3.00	-11.00	-9.00	-9.00	-10.00
	Ideal	dB	-1.00	-1.00	-1.00	-1.00	4.50	4.50	5.00	5.00	-8.00	-8.00	-8.00	-8.00
	Max	dB	0.00	-0.50	-0.50	0.00	7.50	5.50	6.00	7.00	-5.00	-7.00	-7.00	-6.00
Return loss	Min 5-15 MHz	dB	18				18				18			
	Min 15-40 MHz	dB	30 Output Ports / 25 Input port				30 Output Ports / 25 Input port				30 Output Ports / 25 Input port			
	Min 40-42 MHz	dB	18				18				18			
Output to output isolation - all ports	Min 5-15 MHz	dB	≥ 25				≥ 25				≥ 25			
	Min 15-40 MHz	dB	≥ 35				≥ 35				≥ 35			
	Min 40-42 MHz	dB	≥ 25				≥ 25				≥ 25			
Noise figure	Worst case	dB	≤ 8				≤ 9				≤ 16			
Group Delay														
Group Delay - 5 MHz to 6.5 MHz	Maximum Inequality	ns	20				20				21			
Group Delay - Any 1.5 MHz, 6.5 MHz to 40 MHz	Maximum Inequality	ns	10				10				10			
Group Delay - 40 MHz to 42 MHz	Maximum Inequality	ns	30				30				30			
CHANNEL LOADING			T8 (13 MHz) & T9 (19 MHz) Per ANSI/SCTE 115 2006											
Station Input Levels - Specified at housing reverse input (forward RF output ports)														
Input Levels	Per Carrier	dBmV	NA				+48				NA			
Station Distortions (Worst Case) - See Note 3														
Discrete Second Order (DSO)		-dBc	NA				55				NA			
Discrete Third Order (DTO)		-dBc					55							
Cross Modulation (XMOD)		-dBc					65							
HUM Modulation	Time Domain method	-dBc					65							

SSNT House Amplifiers Type A, B & C						
	Part Number		SSNT-1-S4A1	SSNT-1-S4B1	SSNT-4-S4C1	
	Description	UNITS	Single output with passive reverse	Single output with active reverse	Four outputs with passive reverse	
Multimedia over Coax Alliance (MoCA)		MHz	1125-1525	1125-1525	1125-1225	1225-1525
Upstream isolation: Any amplified output port to input port	Min	dB	36.0	36.0	36.0	
Downstream isolation: (MoCA isolation from system input): Input port to any amplified output port	Min	dB	16.0	16.0	23.0	26.0
Insertion Loss - Between output ports	Max	dB	NA	NA	30.0	
Physical Information						
RFI Shielding	See Note 2	dB	≥ 100			
Impedance		ohm	75			
Surge protection	For all active outputs, input port & power port (with transformer)	KV	IEEE 587 categories, B3, 6kV/3kA (combination wave) A3, 6KV (ring wave)			
Corrosion Withstand			1000 hours, ANSI/SCTE 143 2007, Test Method for Salt Spray			
Seal Integrity		PSIG	≥ ±15			
DC input voltage range	Measured at the amplifier	VDC	10 to 15			
Power consumption		mA	175	420	175	
Operating temperature range		ºF (ºC)	-40 to +140 (-40 to +60)			
Dimensions	Height x Width x Depth	in. (cm)	1.5 x 3.5 x 5.0 (3.8 x 8.9 x 12.7)	1.5 x 3.5 x 5.0 (3.8 x 8.9 x 12.7)	1.5 x 3.5 x 5.0 (3.8 x 8.9 x 12.7)	
Weight	With external power supply	lbs. (kg)	1.0 (0.45)			

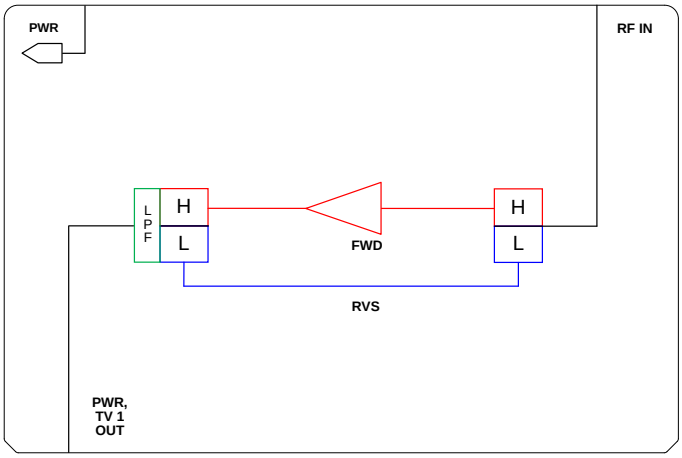
Notes:

1. Worst case channel with specified channel load over specified temperature range.
2. ANSI/SCTE 48-1 2007, Test Method for Measuring Shielding Effectiveness of Passive and Active Devices Using a GTEM Cell.

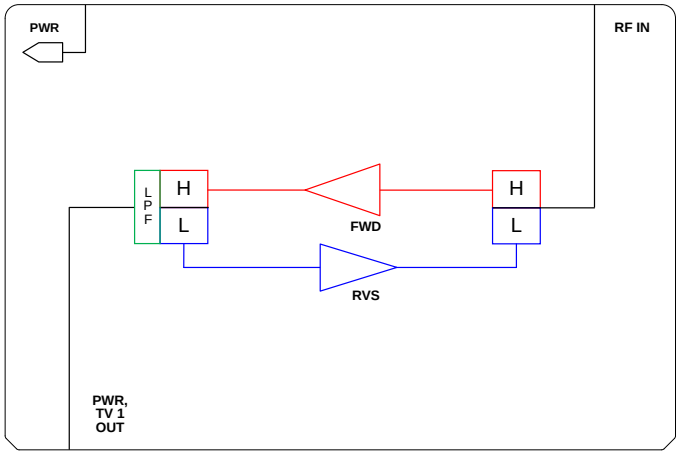
Part Number Ordering Information:

Part Number	Description
Amplifier Only	
SSNT-1-S4A1	TYPE A- 1 Output Passive Reverse
SSNT-1-S4B1	TYPE B- 1 Output Active Reverse
SSNT-4-S4C1	TYPE C- 4 Output Passive Reverse
Amplifier with 120 VAC Power Supply	
SSNT-1-S4A1-01	TYPE A- 1 Output Passive Reverse - With 120 VAC PWS
SSNT-1-S4B1-01	TYPE B- 1 Output Active Reverse - With 120 VAC PWS
SSNT-4-S4C1-01	TYPE C- 4 Out/Passive Reverse - With 120 VAC PWS
Amplifier with 120 VAC Power Supply & Power Inserter	
SSNT-1-S4A1-02	TYPE A- 1 Output Passive Reverse - With 120 VAC PWS & PI-30 Power inserter
SSNT-1-S4B1-02	TYPE B- 1 Output Active Reverse - With 120 VAC PWS & PI-30 Power inserter
SSNT-4-S4C1-02	TYPE C- 4 Output Passive Reverse With - 120 VAC PWS & PI-30 Power inserter

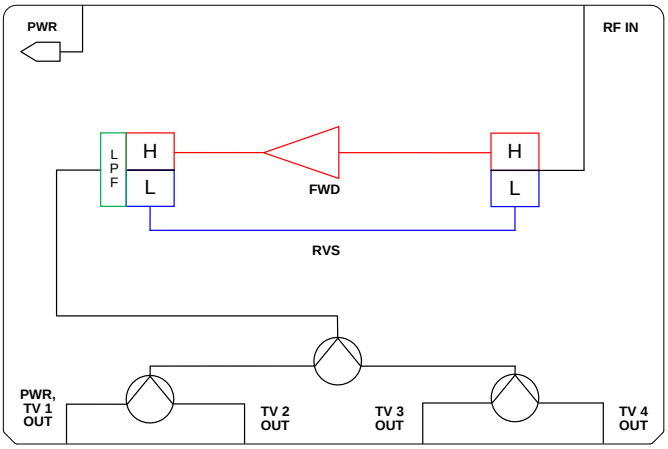
Block Diagrams:



MoCA Multimedia 1 Port House Amplifier
With Passive Reverse Gain
Type A



MoCA Multimedia 1 Port House Amplifier
With Active Reverse Gain
Type B



MoCA Multimedia 4 Port House Amplifier
With Passive Reverse
Type C

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