

# DROP EXTENSION

LA282R DUAL LINE AMPLIFIER

## SITUATION

The output of an LNB or DBS switch is split to multiple rooms or apartments and the receiver signal levels are low at distant locations.

## SOLUTION

Model LA282R boosts cable and DBS signal levels offsetting the loss of 150 feet of RG-6 while passing data modem and receiver control signals from the receiver to the switch.

## RELATED CONSIDERATIONS

This product is a universal coaxial amplifier. The amplifier works with OTA, CATV, DBS & SWM. Includes passive 2 to 42 MHz sub-band return.

Models LA141R, LA142R, LA144R, LA145R & LA146R have 14 dB gain to amplify (1), (2), (4), (5) and (6) drops respectively.

## FEATURES

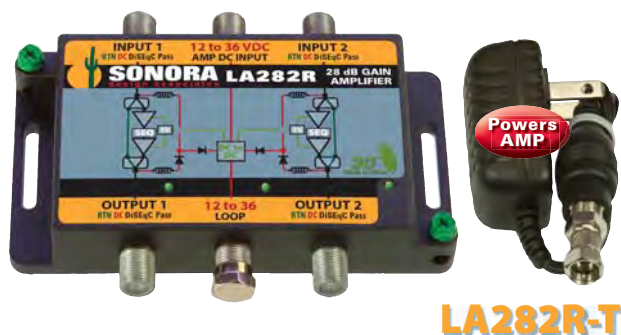
- Wide bandwidth..... 54 to 3000 MHz forward  
..... 22 kHz to 42 MHz return
- High Output Ability ..... 0 dBm
- DC Passing RF Out to RF IN ..... DiSEqC & 2.3 MHz pass
- High Efficiency Power Supply ..... low current use
- Multiple power options..... line or external DC

## APPLICATION NOTES

A garden style apartment building may be served with a single set of DIRECTV dishes.

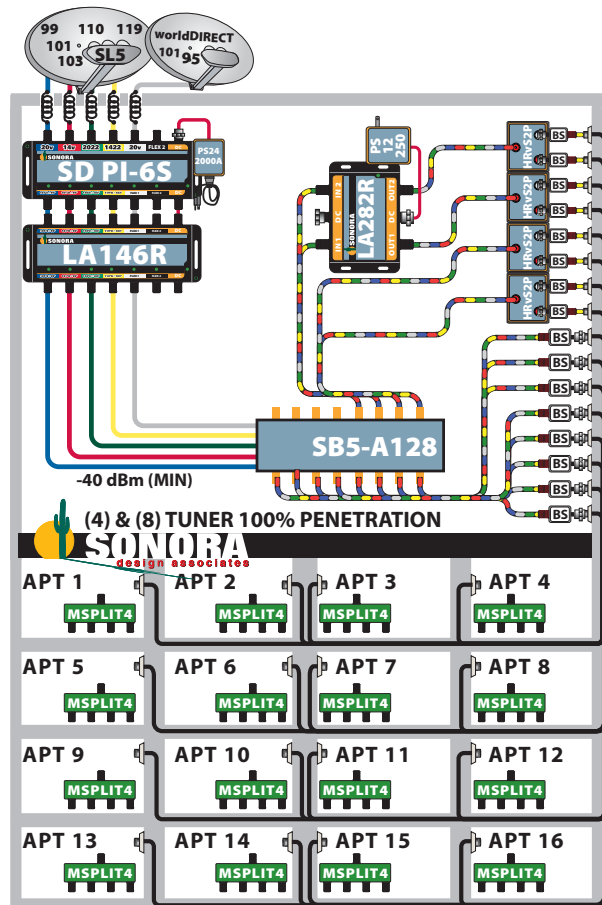
Model SB5-A128 contains SWM16 switches to serve up to 16 apartments with (8) tuners per apartment. Some SWM outputs are split with model HRvS2P splitters to provide up to (4) tuners per apartment.

The maximum recommended IDF to apartment distance is 150 feet of RG-6 without a LA282R line extender. Model LA282R extends SWM drop distances while passing the 2 MHz control signals.



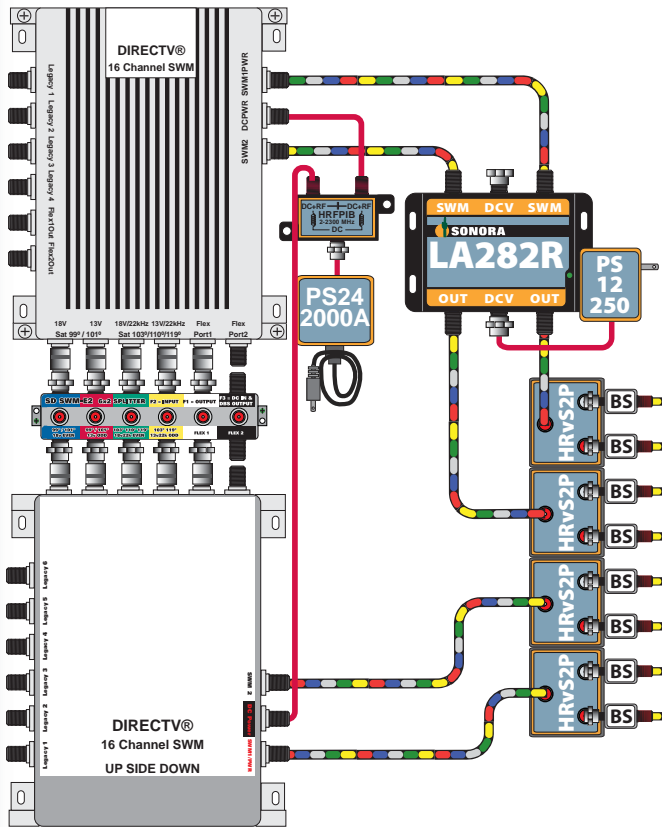
## DESCRIPTION

DBS, OTA, CATV, 54 to 3000 MHz line powered dual amplifier with forward gain and passive sub-band 2 to 42 MHz return.



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Model **SD SWME2** expands the (6) inputs to a SWM16 switch to serve (2) **SWM16** switches.

Model **LA282R-T** extends both outputs of a **SWM16** switch. Model **LA282R-T** includes model **PS12250** for external powering.

Models **HRFPIB** & **PS242000A** power the (2) SWM16 switches. Model **HRV52P** splitters split the (2) **SWM16** switches to (8) apartments with each apartment capable of authorizing (4) tuners.

Model **BSFRO** bandstop filters isolate the MoCA signals from one apartment from the other apartments.

Connecting model **PS242000A** to the VDC port of the **LA282R** powers the amplifier and the DC loop can power the SWM16. The wide DC window of the **LA282R** allows a **PI-29** to be used to power the amplifier and SWM16

## SPECIFICATIONS

Specifications..... Typical..... QC Limit

### Gain

2 to 42 MHz	-1 dB	-4 dB
250 MHz	22 dB	20 dB
1450 MHz	24 dB	22 dB
2150 MHz	30 dB	28 dB
3000 MHz	26 dB	25 dB

Maximum Output (32 equal transponders) ..... 0 dBm

### Maximum Output Power

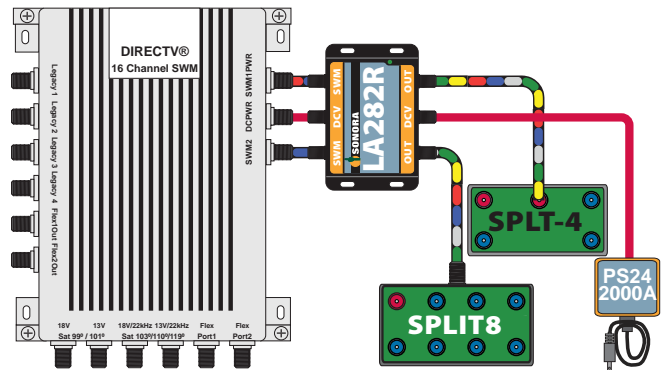
IM2 & IM3 2 tones @ 6 dBm ..... -47 dBc ..... -45 dBc min

### Pass band Flatness

Any 24 MHz band	0.1 dB	0.2 dB
Input Return Loss	12 dB	9 dB
Output Return Loss	13 dB	10 dB
Noise Figure	6 dB	7 dB

### Power Specifications

Voltage	12 to 36 VDC
Power Consumption	2.5 watts
12 V	205 mA
29 V	95 mA
Model <b>LA282R-T</b> transformer	12 V 250 mA



### Mechanical Specifications

Dimensions	4" x 3.5" x 1.4"
	<b>LA282R</b> <b>-T with 12 V</b>
Box Dimensions	5.5" x 4.6" x 1.3" ..... 5.25" x 4.6" x 3.7"
Weight	0.8 lb. (0.37 kg) ..... 1.3 lb. (0.6 kg)
Master Carton QTY	(40 units) ..... (24 units)
Master Carton Size	12" x 19" x 8" ..... 12" x 19" x 11"
Master Carton Weight	33 lb. (14.8 kg) ..... 30 lb. (13.5 kg)

### Environmental Specifications

Operating Environment	Indoor/Outdoor (Lock box)
Ambient Temperature	-30° C to +60° C

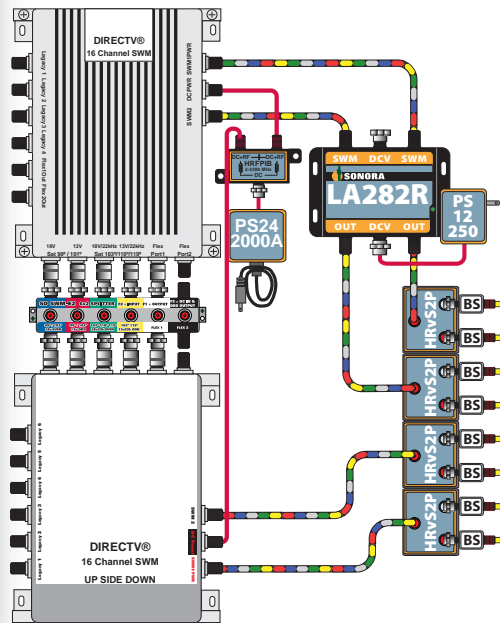
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## LA282R



## LA282R-T



### PS12250 DC Power Supply

- UL Approved
- 12 Volt 0.25 Amp
- F-Connector for DC Input
- Overload Protection

## PS12250



### SWiM Dual Output amplifier with integrated sub-band diplexer

- Provides 28 dB of gain which offsets an additional 300 ft of RG-6 or 500 feet of RG-11 cable runs
- Passes 2 to 42 MHz signals for SWM & data modem communication

Parameter	UNIT	LA282R-T
System Impedance	Ohm	75
Operating Frequency Range	MHz	54 - 2150
	MHz	2 - 42 MHz (return path)
	kHz	22 (return path)
Flatness in operating frequency	dB	± 0.5 dB over 36 MHz
22 kHz Impedance to Ground	ohm	>800
Gain / Loss		
2 - 42 MHz	dB	-3 maximum
54 MHz	dB	16
250 MHz	dB	21
2150 MHz	dB	29
3000 MHz	dB	26
Slope: Frequency	MHz	250 to 2150
Linearity	dB	± 1 dB inverted from RG-6 slope
Slope	dB	8 dB
Noise Figure	dB	8 max @ 2150 MHz
Distortion (2) Tones	dBm	+9 dBm composite
Output per Tone	dBm	+6 dBm
IM2 & IM3	dBc	< -45
Isolation Satellite to Satellite	dB	> 45 dB
Input Return Loss	dB	>10
Output Return Loss	dB	>10
Number of Inputs	Each	2
Number of Outputs	Each	2
Non harmonic spurious emissions	dBm	-80 max
DC Power Supply	model	<b>PS12250</b>
DC Input Voltage	VDC	10 to 29 from Power Adaptor
Max Power Consumption	w	2.5 (max.)
DC Power pass (any Output to Input)	mA	1000 (min)
DC block on Output ports		does NOT pass DC to output ports
Power Supply LED	color	Green with external supply
Lightning Surge Protection		32 V p-p, max shunt current 200 A; 8 msec, 1.5 kW max dissipation
Ground Screws	Each	2
Dimensions L x W x H	inch	4.75 x 3.5 x 1.4
Environmental Requirements		Indoor / Outdoor (Lock box)
Operating Temperature range	°C	-34 to + 60
Storage Temperature	°C	-50 to + 85
Humidity		Survives 95% relative humidity over operating temperature