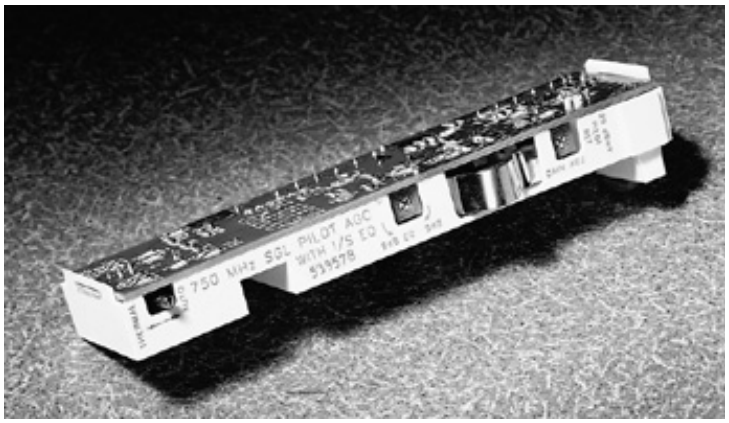
RF Electronics

Automatic Gain Control Modules for SAI, SAII, SAII+, SAIII, & LEII, LEIII

Description



Scientific-Atlanta manufactures a broad line of Automatic Gain Control (AGC) modules to meet the needs of the variety of advanced amplifiers and architectures being deployed today. These AGC modules include varied features such as pad sockets and on-board variable (or fixed value) interstage equalizers, and are available in a variety of pilot frequencies. Many models are also available with two types of frequency response characteristics (high and low frequency peak or flat). The automatic control circuit samples the amplifier output signal, monitors the level of the carrier pilot, and provides error correction input to the Bode network as variations in signal level are detected. This closed loop system ensures a constant amplifier output level regardless of changes in signal level upstream from the amplifier input.

The AGC module operates from a modulated carrier by detecting the peak carrier level during the sync interval or from an unmodulated CW carrier. Thus, for proper operation, the channel selected as the pilot carrier cannot be scrambled by sync suppression.

Features

- Excellent internal temperature stability
- Not affected by adjacent channel level changes
- Impervious to changes in modulation level or True peak carrier detection
- ±0.5 pilot level stability over temperature range
- Proper setup is quick and simple

Automatic Gain Control Modules

Specifications

Amplifier Application	Description	Part Number	Frequency Response	Pilot Frequency (MHz)	Control Range At highest freq. (ref @ 50F)	Pilot Reference Level (dB)
SAII (550 MHz)	AGC w/3-9 dB VEQ	502777	PHL	YY (445.25)	4.0 dB	38 @ 750 MHz
SAII *, LEII (750 MHz)	AGC w/ 3-9 dB VEQ	511377	PHL	YY (445.25)	±4.0 dB	38 @ 750 MHz
SAII *, LEII (750 MHz)	AGC w/ 6-12 dB VEQ	537986	PHL	YY (445.25)	±4.0 dB	38 @ 750 MHz
SAII (30/46) HGD, UBT	AGC w/ 3-9 dB VEQ	538398	PHL	YY (445.25)	±4.0 dB	38 @ 750 MHz
SAII (750 MHz)	AGC w/ 9 dB FEQ	539578	Flat	YY (445.25)	±4.0 dB	29 @ Pilot
SAII * (750 MHz)	AGC w/ 3-9 dB VEQ	540535	PHL	456.0	±4.0 dB	38 @ 750 MHz
SAII, LEII (750 MHz)	AGC w/ 3-9 dB VEQ	542048	PHL	YY (445.25)	±4.0 dB	29 @ Pilot
SAII, LEII (550-600 MHz)	AGC w/ 3-9 dB VEQ	542627	PFHL	Broadband NTSC Ch.OO-TT (385.25 - 421.25)	±4.0 dB	38 @ 600 MHz
SAII (750 MHz)	AGC w/ 3-9 dB VEQ	543404	Flat	YY (445.25)	-4.0 / +3.0 dB	29 @ Pilot
SAII *, LEII (750 MHz)	AGC w/ 3-9 dB VEQ	543091	PHL	471.25	±4.0 dB	38 @ 750 MHz
SAII, LEII (750 MHz)	AGC w/ 6-12 dB VEQ	544643	PHL	YY (445.25)	±4.0 dB	29 @ Pilot
LEIII (12 V DC)	AGC w/ 9 dB FEQ	542378	Flat	YY (445.25)	±4.0 dB	29 @ Pilot

* Not for use in system amplifiers with metal cover. (SA II+ and SAIII)
LEGEND: • PHL - Peaked at High and Low Frequency • FEQ - Fixed Value interstage Equalizer • VEQ - Variable Interstage Equalizer
NOTES: (Applies to all AGC modules):
- Pilot channel must be operating at all times - High and Low peak frequency response AGCs typically utilized in plant upgrades
- Pilot channel must not be scrambled - Flat frequency response AGCs typically utilized in new plant construction or rebuilds

ORDERING INFORMATION

• Order AGC module by part number • Order pads based on system design • Variable Equalizer values determined by system design

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