

DESCRIPTION

The A350 series of medium power microprocessor based instrumentation and subsystem amplifiers provide the user with proven reliable instrumentation for a wide variety of test and system applications.

The operating modes are selectable via front panel push button controls and the operating mode is displayed on a one line, 16 character, LED digital display. Additionally, salient power supply voltages, currents, and fault indicators can be displayed.

Each amplifier can be remote controlled via the standard IEEE-48 GPIB.

Each amplifier features complete regulation of the helix, filament and grid power supplies, thus providing stable operation and long life for the TWTs. The TWT is fully protected against power supply malfunctions such as helix overcurrent.

Optionally, the TWTAs can be supplied with complete input and output VSWR protection.

These medium power TWTAs are compact and lightweight making them ideal for bench operation or rack mounting.

FEATURES

- **Monitor-Digital Display**
 - Standby
 - Faults
 - Helix Voltage/Current
 - Collector Voltage
- **Mode-Digital Display**
 - Power On/Off
 - RF On
- **Controls**
 - Power On
 - Power Off
 - RF On
 - RF Off
 - Local Select
- **Ease of Maintenance**
- **Designed to meet the safety requirements of IEC-348 and UL1419**
- **Broadband Frequency**
- **C.E. Certified**

APPLICATIONS

- EMC Susceptibility Testing
- Communications
- General Laboratory Instrumentation
- System Preamplifiers
- Threat Simulation
- Antenna Patterns Testing
- Component Testing

RF SPECIFICATIONS

Model Number	Frequency Range (GHz)	Min Pwr Out* (Watts)	Min Small Signal Gain (dB)	Max NF (dB)
A350 SERIES				
A350/S	2.0 - 4.0	50	34	35
A350/EH	2.0 - 8.0	50	30	35
A350/C	4.0 - 8.0	50	40	35
A350/IJ	8.0 - 18.0	50	35	35
A350/IJX	6.0 - 18.0	40	35	35

Spurious: -40 dBc (-50 dBc available)
In/Out Impedance: 50 Ohms
In/Out VSWR: 2.5:1 Maximum
Residual AM/FM: 1% Maximum (-40 dBc) (3)

RF Connectors :

Frequency	Input	Output
2.0 GHz - 18.0 GHz	Type N	Type N
Location:	Front Panel	Front Panel

ENVIRONMENTAL

Operating Temperature: 0 to 50°C (40°C @ 10,000 feet)
Relative Humidity: 95% (noncondensing)
Operating Altitude: 10,000 feet Maximum
NonOperating Temp.: -20 to 70°C
NonOperating Altitude: 50,000 feet Maximum

PRIME POWER

Switchable 115 or 230 VAC, $\pm 10\%$, Single Phase, 50-60 Hz, 750 VA maximum.

MECHANICAL

Dimensions:

A350/C: 5.25" (133mm) H x 16.5" (419mm) W x 22.5" (571mm) D Rack Mount	S, EH, IJ, IJX:	5.25" (133mm) H x 16.5" (419mm) W x 20.5" (521mm) D Rack Mount
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Weight: 38 pounds (17.3 kg)

Cooling: Internal Forced Air
Air Intake: Rear Panel
Air Exhaust: Rear Panel

REMOTE OPERATION

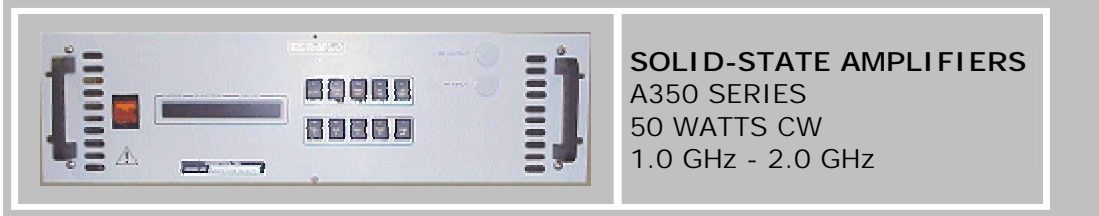
Standard: Operating mode control and status monitoring via IEEE-488 GPIB.

OPTIONS AVAILABLE

Option 03: Reflected Power Cutoff VSWR Protection (1)
Option 04-XX: Alternate Prime Power (2)
Option 07: Input Pin diode Pulse Modulator with 40dB Isolation;
15ns rise/fall times (1)
Option 09: Integral Input Isolator (1)
Option 12: RF Sample of the output (30 dBc) (1)
Option 13: Chassis Slides for Standard 19" Rack Mounting
Option 14: Internal Preamplifier for rated power @ less than 0
input.
Option 15: Input Attenuator; 20dB range (2)
Option 18: RF Input/Output Connectors on the Rear Panel (1)
Option 30: RF Output Power displayed on Digital Front Panel Display
(1)
Panel Display (1)
Option 30R: Reflected Power Metering
Other options available (2)

NOTES:

(1) Option may affect rated output power and gain
(2) Consult factory for features and other functions
(3) Typically -46 dBc AM; -55 dBc FM



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The operating modes are selectable via front panel push button controls and the operating mode is displayed on a one line, 16 character, LED digital display. Additionally, salient power supply voltages, currents, and fault indicators can be displayed.

Each amplifier can be remote controlled via the standard IEEE-48 GPIB.

This amplifier utilizes class A linear power devices that provide excellent linearity, high gain, and wide dynamic range. High efficiency operation is achieved by employing a unique broadband microstrip RF network and advanced GaAs FET devices.

These solid-state amplifiers are compact and lightweight making them ideal for bench operation or rack mounting.

The amplifier is protected for load VSWRs from open to short (at all phases) with an internal isolator. Input/output VSWR is specified at 2:1 max.

FEATURES

- **Monitor-Digital Display**
 - Standby
 - Faults
- **Mode-Digital Display**
 - Power On/Off
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- **Controls**
 - Power On
 - Power Off
 - RF On
 - RF Off
 - Local Select
- **Ease of Maintenance**
- **Designed to meet the safety requirements of IEC-348 and UL1419**
- **Broadband Frequency**
- **C.E. Certified**

APPLICATIONS

- EMC Susceptibility Testing
- Communications
- General Laboratory Instrumentation
- System Preamplifiers
- Threat Simulation
- Antenna Patterns Testing
- Component Testing

RF SPECIFICATIONS

Model Number	Frequency Range (GHz)	Min Pwr Out* (Watts)	Min Small Signal Gain (dB)	Max NF (dB)
A350 SOLID-STATE SERIES - FULL RACK 5.25" HIGH				
A350/L	1.0 - 2.0	50	50	10
Harmonics:		-20 dBc typical @ 1 dB comp.		
Spurious:		> -60 dBc		
In/Out Impedance:		50 Ohms		
In/Out VSWR:		2.0:1 Maximum		
RF Connectors :				
Frequency		Input	Output	
1.0 GHz - 2.0 GHz		Type N	Type N	
Location:		Front Panel	Front Panel	

ENVIRONMENTAL

Operating Temperature:	0 to 50°C (40°C @ 10,000 feet)
Relative Humidity:	95% (noncondensing)
Operating Altitude:	10,000 feet Maximum
NonOperating Temp.:	-20 to 70°C
NonOperating Altitude:	50,000 feet Maximum

PRIME POWER

Switchable 115 or 230 VAC, $\pm 10\%$, Single Phase, 50-400 Hz, 350 VA maximum.

MECHANICAL

Dimensions:

A350/L-SS:	5.25" (133mm) H x 16.5" (419mm) W x 20.5" (521mm) D Rack Mount
Weight:	38 pounds (17.3 kg)
Cooling:	Internal Forced Air
	Air Intake: Rear Panel
	Air Exhaust: Rear Panel

REMOTE OPERATION

Standard: Operating mode control and status monitoring via IEEE-488 GPIB.

OPTIONS AVAILABLE

- Option 04-XX: Alternate Prime Power (2)
 - Option 07: Input Pin diode Pulse Modulator with 40dB Isolation;
15ns rise/fall times (1)
 - Option 12: RF Sample of the output (30 dBc) (1)
 - Option 13: Chassis Slides for Standard 19" Rack Mounting
 - Option 15: Input Attenuator; 20dB range (2)
 - Option 18: RF Input/Output Connectors on the Rear Panel
 - Option 22: Internal System Diagnosis
 - Option 30: RF Output Power displayed on Digital Front Panel Display
(1)
Panel Display (1)
- Other options available (2)

NOTES:

- (1) Option may affect rated output power and gain
- (2) Consult factory for features and other functions