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RF Generator Auto-Test System: RFG-ATS 01



- RFG-ATS 01 identifies when a generator requires attention, alerts the technician to remove the unit before it fails
- Automated suite of 3 test routines takes approximately 10 minutes to complete. Takes only moments to connect to your generator
- > Test results are displayed with Pass / Fail indicated, data is stored and compared to previous test history
- > At least 20% of reported failures are NPO which cost around \$1.3K each plus process disruption and lost production
- Incorrect diagnosis resulting in generator removal will disappear by bringing discipline and precision into failure analysis
- Enables you to implement a "preventative" maintenance strategy, which could significantly reduce repair costs and process downtime
- > Early detection of impending failure will extend product life by avoiding "catastrophic" i.e. expensive and damaging events
- Tests include RF output, VSWR detection, and CEX bandwidth. Test data is easily ported via USB connector. These tests are to confirm, within specification, the calibration and control loop response.
- Rechargeable battery lasts up to 8 hours. Unit supplied with 10ft RF, Interface, CEX cables, charger and carrying case



RFG-ATS 01 units are supplied with four 10 ft. long cables comprising:

- > $1 \ge 50\Omega 0.5$ dia.coax cable fitted with "N" connectors for RF tests.
- > 2 x 50 Ω miniature coax cables with BNC + SMA connectors for CEX (Phase Locked Loop) tests.
- > 1 x 25 pin "D" shell connector cable for user interface connection.
- Ix Right angle "N" connector is provided to enable convenient cable connection to the tester.
- > 1 x "HN" to "N" adapter is also supplied for user convenience.



This screen shot shows the performance of this generator as an average of stored data from previous tests, the dotted line represents an ideal result. The most recent test shows a change in RF output vs. setpoint.

est - Generator Se	Generator Settings 📰 Test Settings ?	• 04:48 Help
Make:	Advanced Energy	
Model:	RFG 3000	~
Model Number:	3155038	
Option:	005	
Serial Number:	374653	
Installation Notes:	 Connect a 25 pin male to female D-shell connector to the device and generator. Connect a HN male to N female coaxial cable between the device and generator. Connect the 12V supply to the device. Supply coolant to the generator. Connect the input power to the generator. Turn on the generator. 	<u>~</u>
Technician Name:	KHUGGINS T	

est -	Test Settings					04:49 PM
M	Results		Generator Settings	Fest Settings	8	Help
Pulse	e Test					
Thre	shold (%):		5.00			÷ On
	es the acceptable threshold power generated					
Cont	inuous Pulse Test		Start Program			Off
			At any time press Exit to quit t and end any tests.	he program		
VSW	R Test					
Thre	shold (%):		Parameters may not be change begun.	ed once test has		🔶 On 📄
Change for the	es the acceptable threshold		Do you want to start the test?	?		
	le Plasma Testing		Ok Cancel			Off
Phas	e Lock Loop Test					
Band	width (kHz)		2.00			🗘 On 📄
	es the bandwidth Phase Lock Loop test					
-						-
1 2	2 🔍 📄 Rfg_tester_gui_lo	oop.py - 2	vindows			Q4:49 PM

est - Test Settings			•	🔲 04:47 P
Results	Generator Settings	Test Settings	?	Help
Pulse Test				
Threshold (%):	5.00		<u>+</u>	On
Changes the acceptable threshold for the power generated				
Continuous Pulse Test		Feature Coming Soon		Off
VSWR Test				
Threshold (%):	600.00		4	On
Changes the acceptable threshold for the VSWR				
Enable Plasma Testing		Feature Coming Soon		Off
Phase Lock Loop Test				
Bandwidth (kHz)	2.00		÷	On₀
Changes the bandwidth for the Phase Lock Loop test				

2	Results	Generator Settings	• 04:47 F Help
Pulse	e Test		
Three	shold (%):	5.00	🗘 On 📄
	s the acceptable threshold power generated		
Conti	inuous Pulse Test	Feature Coming Soon Reflected Test Warning	Off
Change for the V	R Test shold (%): s the acceptable threshold vSWR le Plasma Testing	This test will check the reflected limit of the device. If the device does not have proper reflected limits it could be damaged! See the generator's user manual for detailed instructions. Ok Cancel	Cff
Phase	e Lock Loop Test		
Change	width (kHz) s the bandwidth ¤hase Lock Loop test	2.00	🛨 🚺 Off
1 2	Rfg_tester_gui_la		4:47 P



