



RTG-3 2-Tone

RETURN PATH TEST GENERATOR

Features

- 2-Tone output mode. Both channels can be individually toggled on/off.
- Extended frequency range (5-204MHz) for compatibility with EuroDOCSIS 3.1
- Channel and frequency table programming (Protected by pin code)
- Frequency tables by project name (up to 12 frequencies per table)
- User access of a single frequency table is authorized by supervisor
- Output level adjustment via dialog
- Level unit on display can be set to either dB μ V or dBmV.
- Sequential output mode (up to 12 frequencies) with adjustable interval time.
- Integrated intelligent battery charger for prolonged battery lifetime
- Autonomy \geq 8 hours
- Automatic shutdown timer
- Several more features



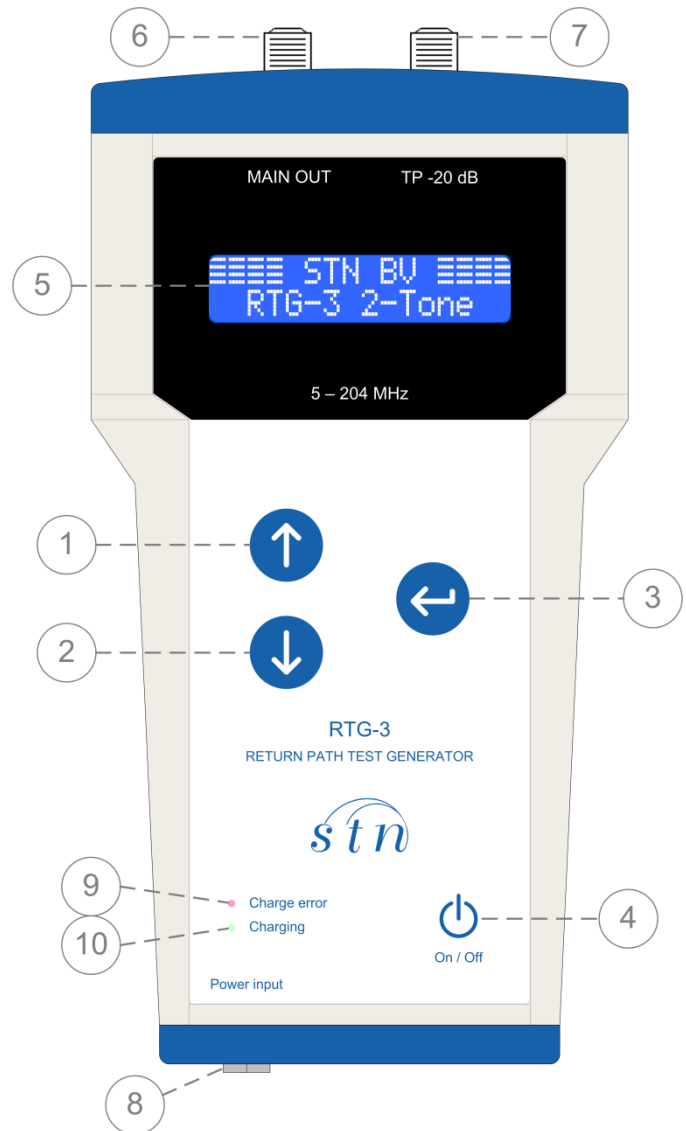
Specifications

- Frequency range – 5-204 MHz (25 kHz resolution)
- Frequency accuracy – typically \pm 2,5 ppm
- Level Range – 80-110 dB μ V (single-tone) / 80-105 dB μ V (2-tone) (0,5 dB resolution)
- Output Level accuracy – typically \pm 0,25 dB
- Spurious and harmonics rejection \geq 55 dBc.
- Return loss – typically > 20dB
- Connector type: F (75 Ω)
- Test Point -20dB / RF OUT



Product Overview

1. **“Up” Key**
Adjust Setting / Scroll through options
2. **“Down” Key**
Adjust Setting / Scroll through options
3. **“Enter” Key**
Confirm action / Enter Setting menu
4. **“On/Off” Key**
Hold for 0,5 sec. to switch on the RTG-3.
Hold for 1,5 sec. to switch off the RTG-3.
5. **LCD Display**
6. **“MAIN OUT”**
Main RF Output signal.
7. **“TP -20 dB”**
Output signal identical to MAIN OUT but 20 dB lower in level.
8. **“Power Input”**
Input connector for the adapter used for charging the battery. Connect a DC power supply with 12 V and minimum 1.5 A.
9. **“Charge error”**
Indicates an error in the charging process or a pause in charging due to temperature.
10. **“Charging”**
Indicates the battery being charged.



Scope of delivery

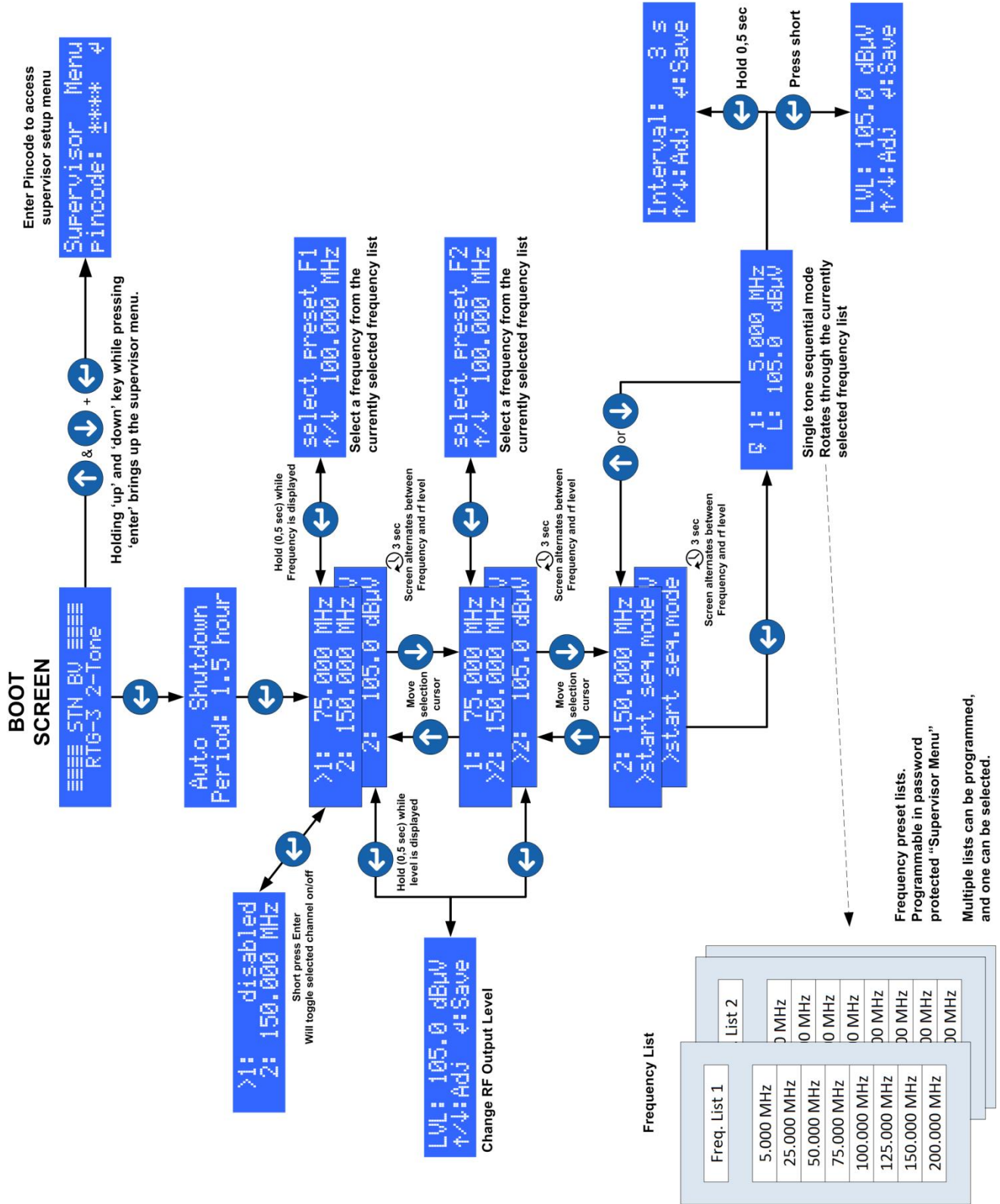
The RTG-3 is delivered including:

- Protective carrying case
- mains adapter
- cigarette lighter plug
- User Manual



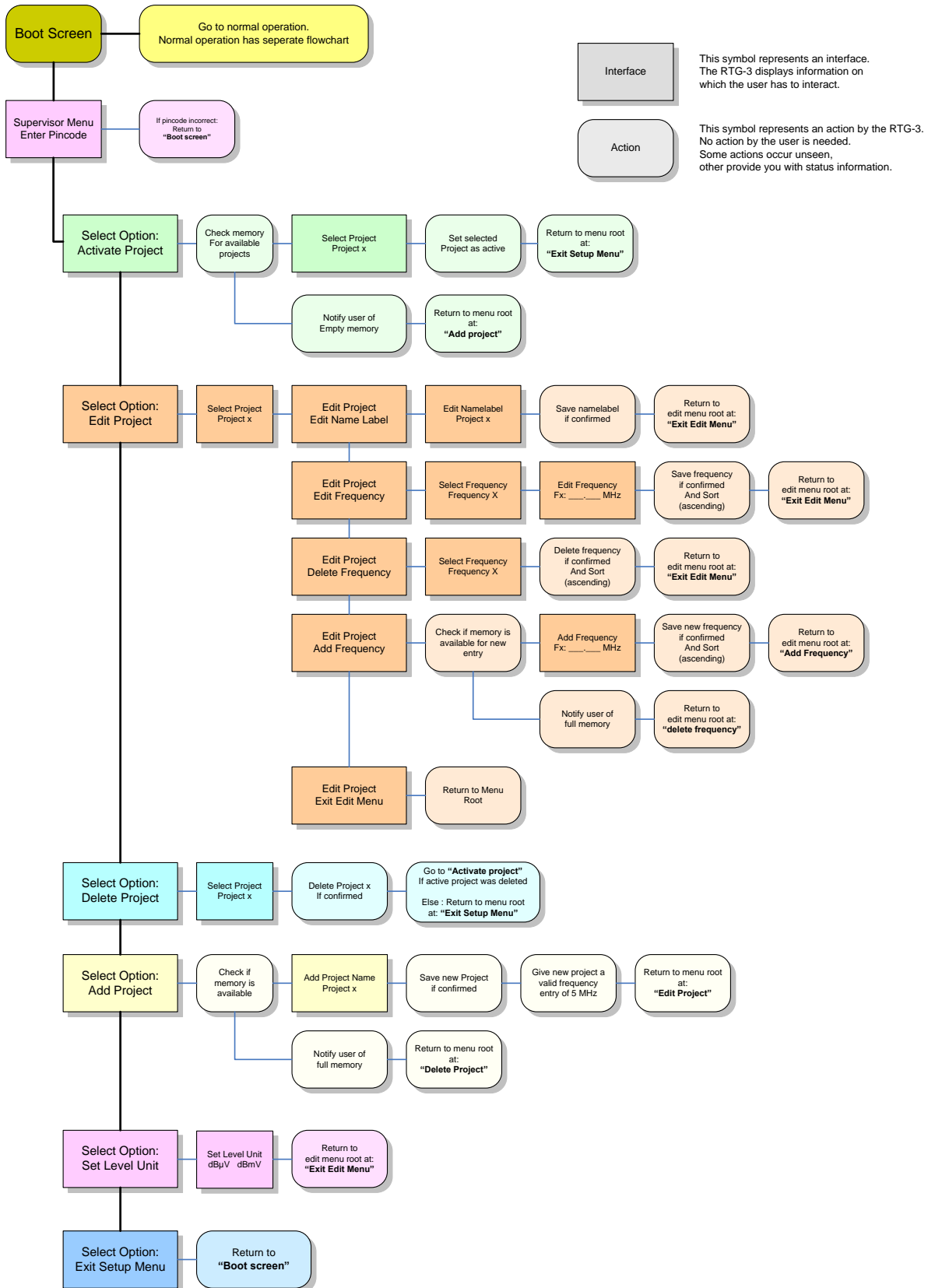


User Interface Flowchart





Supervisor Menu Flowchart





RTG-3 Specifications

Parameter	Value			Unit
	min	typ	max	
OUTPUT CHARACTERISTICS				
Output Impedance		75		Ohm
Output Connector		F-connector		
Return Loss (at "MAIN OUT") 5 MHz - 204 MHz (25°C)	18	20		dB
Return Loss (at "TP -20 dB")	18	20		dB
FREQUENCY CHARACTERISTICS				
Frequency Range	5		204	MHz
Frequency Resolution		25		kHz
Frequency Accuracy (25°C)		2,5	5	ppm
Thermal Frequency drift (0°C - 50°C)		TCXO		
LEVEL CHARACTERISTICS				
Adjustable Level Range (at "MAIN OUT") / single-tone	80		110	dB μ V
Adjustable Level Range (at "MAIN OUT") / 2-tone	80		105	dB μ V
Adjustable Level Range (at "TP -20 dB") / single-tone ⁽¹⁾	60		90	dB μ V
Adjustable Level Range (at "TP -20 dB") / 2-tone ⁽¹⁾	60		85	dB μ V
Level Resolution		0,5		dB
Level Accuracy (25°C) ⁽²⁾		$\pm 0,25$	$\pm 0,50$	dB
Attenuation Step Accuracy		$\pm 0,10$		dB
Thermal level drift. (0°C - 50°C)		$\pm 0,25$		dB
IN BAND SPECTRAL PURITY @ 110 dBμV out				
5 MHz - 204 MHz (25°C)	-56	-60		dBc
OUT OF BAND SPECTRAL PURITY @105 dBμV out⁽³⁾				
< 5 MHz (25°C)	-60	-65		dBc
>204 MHz (25°C)	-60	-65		dBc
MISCELLANEOUS SETTINGS				
Auto Shutdown Timer	0,5		3	hours
Interval time of sequential frequency mode	1		10	s
CURRENT CONSUMPTION				
Active output frequency / single-tone		250		mA
Active output frequency / 2-tone		340		mA
Output disabled		20		mA
While in Supervisor menu		20		mA
BATTERY				
Built in battery with temperature sensor. NiMh 7,2V 2700 mAh Hours of use on a fully charged battery ⁽⁴⁾	5,5	8		hours
DIMENSIONS (H/W/D)				
	213 x 110 x 41,5			mm
WEIGHT				
	520			gram

⁽¹⁾ "MAIN OUT" terminated.

⁽²⁾ Over full frequency range (5-204 MHz).

⁽³⁾ @110 dB μ V Output level this specification is reduced by 5 dB

⁽⁴⁾ The hours of use are dependent on the way of use. Minimum is measured with permanent active 2-tone output. Typical is measured with permanent single-tone output.