

VIAVI

ATB-7300NG

Avionics NAV Bench Test Set

Signal Generator	
Frequency Range	100 kHz to 6 GHz 1 Hz resolution
Frequency Accuracy	±0.1 ppm
RF Level	
RF Output Port	1 MHz to 400 MHz ±1.2 dB (-125 dBm to +4 dBm) 400 MHz to 3 GHz ±0.9 dB (-125 dBm to +4 dBm) 3 GHz to 6 GHz ±1.6 dB (-125 dBm to +4 dBm)
Spurious	
Phase Noise	-114 dBc/Hz at 10kHz offset
Harmonics	< -33 dBc
Non-Harmonics	< -50 dBc

MKR Generator	
Tone Settings	
Frequency Range	30 Hz to 7,400 Hz
Resolution	1 Hz
Default	
Outer	400 Hz
Middle	1.300 kHz
Inner	3.000 kHz
% Modulation	
Range	0-99%
Resolution	1%
Default	95%
IDENT	
Outer	
Dot Time	0 ms, fixed
Gap Time	
Range	50 ms to 250 ms
Resolution	
Default	125 ms
Dash Time	
Range	150 ms to 750 ms
Resolution	1 ms
Default	375 ms
MIDDLE	
Dot Time	125 ms, fixed
Gap Time	125 ms, fixed
Dash Time	375 ms, fixed
INNER	
Dot Time	83 ms, fixed



MKR Generator continued	
Gap Time	83 ms, fixed
Dash Time	0 ms, fixed
ILS Generator	
Settings	
Phase Shift	
Range	0.0 to 359.9°
Resolution	0.1°
Default	0.0°
Total MOD	Not to exceed 99% LOC includes 1,020 Hz IDENT modulation See *IDENT SPECIFIC DATA*
DDM Settings	
Range	
(Glideslope)	0.000 to 0.800 DDM
(Localizer)	0.000 to 0.400 DDM
Resolution	0.001 DDM
Default	0.000 DDM
Total System Error	
(Glideslope)	±0.001 DDM from 0.000 to 0.045 DDM ±2% of setting from 0.045 to 0.400 DDM
(Localizer)	±0.001 DDM from 0.000 to 0.045 DDM ±2% of setting from 0.045 to 0.200 DDM
Glideslope and Localizer Tone Settings	
Frequency	
Range	90 Hz setting range: 72 Hz to 108 Hz 150 Hz setting range: 120 Hz to 180 Hz
Resolution	1 Hz
Accuracy	±0.01%
Distortion	<0.40% THD
Modulation	90 and 150 Hz Total MOD not to exceed 99%
Default	20%
Overall Accuracy	±2% for 5% to 90% AM
VOR Generator	
Direction	
Bearing	
Range	000.0° to 359.9°

Resolution	0.1°
Radial Accuracy	±0.05°
Tone Settings	
Frequencies	30 VAR and 30 REF Freq
Range	20 Hz to 40 Hz
Resolution	1 Hz
Default	30 Hz
9960 Frequency	
Range	9 kHz to 11 kHz
Resolution	1 Hz
Default	9,960 Hz
Accuracy	±2% of setting
Distortion	<0.40% THD
Modulation	30 VAR and 9,960 MOD
Range	Total % MOD not to exceed 99% Includes 1,020 Hz IDENT modulation See *IDENT SPECIFIC DATA*
Default	30%
Overall Accuracy	±2% for 5% to 90% AM
Frequency Deviation	
Range	240 Hz to 540 Hz
Resolution	1 Hz
Default	480 Hz
IDENT (ADF, ILS LOC AND VOR)	
IDENT Code	
Valid Characters	A-Z, 0-9
Length	1 to 5 characters
Default	IDENT
Word Rate	
Range	1 sec. to 65 sec.
Default	10 sec.
Resolution	1 sec.
Frequency	
Range	10 Hz to 18 kHz
Resolution	1 Hz
Default	1,020 Hz
Accuracy	±0.01%
Modulation	
Range	Total % MOD not to exceed 99%
Resolution	0.01%
Default	0.00%
Overall Accuracy	±2% for 5% to 90% AM
Distortion	<0.40% THD

IDENT (ADF, ILS LOC AND VOR) continued	
Dot Time	
Range	50 ms to 250 ms
Default	150 ms
Resolution	1 ms
Gap (Dot/Dash) Time	
Range	50 ms to 250 ms
Default	150 ms
Resolution	1 ms
Dash Time	
Range	150 ms to 750 ms
Default	450 ms
Resolution	1 ms
Character Spacing	
Range	150 ms to 750 ms
Default	450 ms
Resolution	1 ms
VHF COMM GENERATOR	
MODES	
AM Mode	
Modulation	
Frequency Range (per Tone)	30 Hz to 18 kHz
Default	1 kHz
Resolution	1 Hz
Accuracy	±1% from 10% to 90%
Range	Total % MOD not to exceed 99%
Default (Per Tone)	30%
Distortion	<0.40% THD
SELCAL Mode user selectable tone set with programmable tone periods.	
SELCAL Settings	
P1 and P2 Codes	
Range	2 characters
Valid Characters	A through H, J through M, P through S
VHF COMM GENERATOR continued	
P1 and P2 Tones	
<i>Frequencies</i>	
Range	Set from code, 312.6 Hz to 1,479.1 Hz
Pulse MOD	
Range	0.00% to 99%
	Applies to ALL pulses including test tone

Resolution	0.01%
Default	90.00%
Timing	
P1 and P2 Time	
Range	0.000 to 2.000 sec.
Resolution	0.001 sec.
Default	1.000 sec.
Gap Time	
Range	0 to 999 ms
Resolution	1 ms
Default	200 ms
Test Tone	
Frequency	
Range	10 Hz to 18 kHz
Resolution	1 ms
Default	1020 Hz
Test Tone MOD	
Range	0.00% to 99%
Resolution	0.01%
Default	30.00%
Enable	ON (Checked) or OFF (Unchecked)
General Information	
Environmental	
Operating temperature 0° - 50° C	
Storage temperature -40° - 71° C	
Humidity 95% to 40° C (in accordance with MIL-PRF-28800F)	
Altitude 4,600 m	
Functional shock 30 G (in accordance with MILPRF-28800F)	
Random vibration 5 Hz - 500 Hz (in accordance with MIL-PRF-28800F)	
Remote Control Interface	
Ethernet	
Regulatory	
Safety compliance IEC / EN 61010-1	
EMC compliance IEC / EN 61326-1	
IEC / EN 61000-3-2	
IEC / EN 61000-3-3	
MIL-PRF-28800F Class 3	
Mechanical	
Rack units mA-1302: 2U x 19"	
Dimensions mA-1302: 432 mm (W) x 88 mm (H) x 435 mm (D)	

General Information continued
Weight mA-1302: 10.5 kg (23.1 lbs)
Acoustic emissions 78 LWA dB (max), 63 LWA dB (typical)
Ports and Connections - Front*
RF OUTPUT - SMA female (1 total)
USB 3.0 Type A (4 total)
Gigabit Ethernet (1 total)
DisplayPort(1 total)
Ports and Connections - Rear*
1588v2 (1 total)
* These are the connectors currently available for use.
Calibration