



Measurably better value



Amplitude flatness to  $\pm 0.15\text{dB}$  and accuracy to  $\pm 0.3\text{dB}$

Amplitude range of  $-127\text{dBm}$  to  $+13\text{dBm}$

Competitive harmonics performance; better than  $-30\text{dBc}$  at  $+13\text{dBm}$

Very low spurious across all output frequencies

Analog and digital modulations



# TGR205X SERIES V2

1.5GHz & 3GHz  
RF Signal Generators

[aimtti.com](http://aimtti.com)

# COMPREHENSIVE FEATURES

Amplitude flatness to  $\pm 0.15\text{dB}$  and accuracy to  $\pm 0.3\text{dB}$

1.5GHz and 3GHz models

Class leading signal purity

Internal DDS baseband generator provided as logic LF output

Fast amplitude and/or frequency sweeps

Amplitude range of  $-127\text{dBm}$  to  $+13\text{dBm}$

Phase noise  $< -117\text{dBc/Hz}$  (typ.) at 1GHz output 10kHz offset

Extensive analog and digital modulations\*

Compatible with previous Aim-TTi RF generators



## IMPROVED FLATNESS AND ACCURACY

For applications requiring high precision and stable signal performance improvements in amplitude flatness, accuracy, harmonics, spurs, and VSWR. Amplitude flatness & accuracy now reach  $\pm 0.15\text{ dB}$  and  $\pm 0.3\text{ dB}$ , respectively, allowing for more reliable signal consistency across the frequency range.

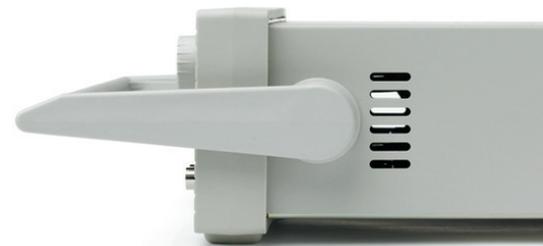


The TGR2051 and TGR2053 V2 are the next generation of RF signal generators from Aim-TTi, offering both exceptional performance and new improved functionality. The high performance RF generators provide high frequency accuracy and stability, large signal amplitude range, low phase noise and flexible analog and digital\* modulation capabilities making it ideal for development, test and service work. Advanced remote control accommodates sophisticated new automated systems and compatibility with Aim-TTi's previous RF instruments enables incorporation into existing systems. With a small footprint and lightweight design and the best price point / performance ratio in its class, the TGR205X V2 maintains Aim-TTi's reputation for high quality, reliable, great value products.

\*Digital modulation available with option TGR-U01

## TGR205X V2 FEATURES SUMMARY

- ▶ Amplitude flatness to  $\pm 0.15\text{dB}$  and accuracy to  $\pm 0.3\text{dB}$
- ▶ 150kHz to 3GHz (TGR2053) and 150kHz to 1.5GHz (TGR2051) frequency range
- ▶ Frequency setting resolution of 10Hz at up to 3GHz (TGR2053) or 1.5GHz (TGR2051)
- ▶ Amplitude range of  $-127\text{dBm}$  to  $+13\text{dBm}$
- ▶ 0.1dBm amplitude setting resolution. Amplitude can be set in dBm,  $\text{dB}\mu\text{V}$  or in linear Volts
- ▶ High signal purity, phase noise  $< -117\text{dBc}/\text{Hz}$  (typical) at 1GHz output and 10kHz offset
- ▶ 1ppm frequency accuracy,  $< 1\text{ppm}$  drift in first year
- ▶ 5ms sweep settling time
- ▶ User selectable low spur mode setting
- ▶ Internal or external analog modulations (AM, FM, PM)
- ▶ Internal or external digital modulations - ASK, OOK, FSK, 3FSK, 4FSK, GFSK, MSK, GMSK, HMSK & PSK\*
- ▶ Sweep and modulation can be used simultaneously
- ▶ Versatile digital modulation modes\* - continuous or triggered
- ▶ Modulation Synchronisation
- ▶ Internal DDS baseband generator provided as logic LF output
- ▶ Modulation waveform output on the rear panel
- ▶ Internal waveforms include: Sine, Square, Ramp, Triangle, PRBS (various lengths) and user-defined pattern
- ▶ Fast amplitude and/or frequency sweeps with comprehensive triggering
- ▶ Simple and easy to operate with the colour and touch display
- ▶ Compatible with previous Aim-TTi RF generators
- ▶ SCPI compatible
- ▶ Programmable via USB, LAN (LXI) and GPIB (optional)
- ▶ Small case design (2U  $\frac{1}{2}$  rack), lightweight (3kg)

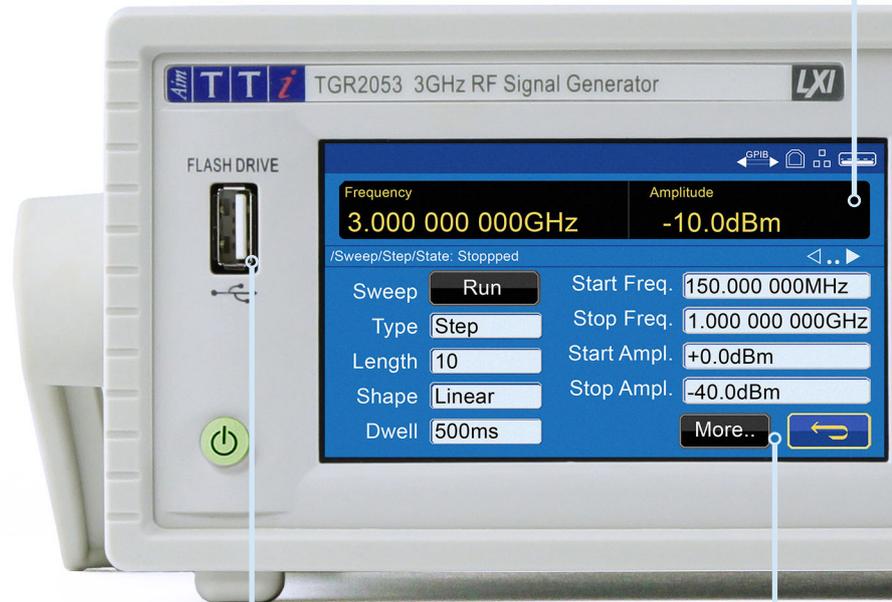
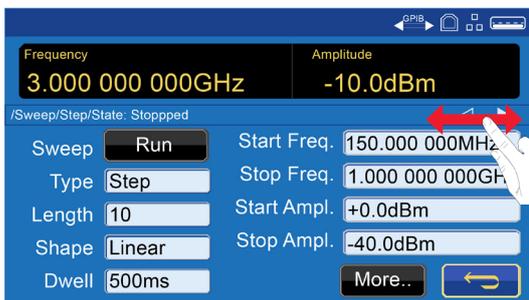


\*Digital modulation available with option TGR-U01

# ENHANCED FUNCTIONALITY

## GRAPHIC USER INTERFACE (GUI)

Both the TGR2051 and TGR2053 V2 feature a simple and straightforward, user friendly, touch operated GUI. The 4.3 inch colour LCD screen displays key information alongside readings for added efficiency. Each parameter is directly editable from the menu screen, reducing the number of steps required to complete a setup. Parameters can also be edited using the hard keys and the rotary knob, providing ultimate flexibility.



### FLASH DRIVE

A front mounted USB flash drive allows full pre-defined complex setups, sweep lists and modulation patterns to be loaded into the instrument quickly and efficiently.

## SWEEP

The sweep function enables signals of varying frequency and/or amplitude to test a full range of input conditions, quickly and efficiently.

Step sweeps are created according to a formula over a specified number of points, in the range 2 - 1000. Formula specifics include: start and stop values and dwell time following SYNC at each point. Sweeps can be set to run in either direction, with linear or logarithmic spacing.

Alternatively, list mode can be used to analyse the response at set frequencies and amplitude- dwelling on set values for specified amounts of time; useful for testing at known problematic frequencies within a setup.

The list can be created within the instrument or downloaded via the remote interfaces.

The sweep setups can either be run through as a single sweep or in a continuous loop and prompted by an internal, external or manual trigger.

Complex sweep triggering is available to control complete sweeps and/or each point within a sweep.

## WIDE AMPLITUDE RANGE

Output power levels of -127dBm to +13dBm from the N-type connector. 50V DC reverse voltage protection.



## SIMULTANEOUS MODULATION AND SWEEP

Sweep and modulation can be used simultaneously on the TGR205X V2 to create more realistic and dynamic test signals. Sweeping across a frequency range while applying modulation helps engineers assess how devices behave under varying RF conditions. This is especially valuable in EMC testing, where products must withstand shifting interference and broadband disturbances. It's also useful in research and development for evaluating filters, antennas, and receivers under lifelike scenarios. Using both features together offers deeper insight into performance, robustness, and signal behaviour than static, unmodulated tests.

## MODULATION

### ▶ ANALOG MODULATION

A built-in DDS generator provides Sine, Square, +Ramp, -Ramp and triangle waves, these can be applied in the forms of AM, FM or PM from the internal modulation source; at frequencies ranging from 1mHz to 1MHz.

External analog modulation signals can be applied to the carrier waveform via the MOD in/out on the rear panel.

### ▶ DIGITAL MODULATION\*

An extensive range of digital modulations available:

FSK, GFSK, MSK, GMSK, HMSK, 3FSK, 4FSK, PSK, ASK and OOK. Built in NRZ patterns include Square wave, 7, 9, 11 & 15-bit PRBS.

Digital modulation capabilities also include advanced filtering: Gaussian, Raised Cosine, Root Raised Cosine and Half Sine as well as Grey Code and Binary Encoding.

External digital modulation signals can be applied to the carrier waveform via the MOD in/out on the rear panel.

### ▶ INTERNAL MODULATION PATTERN

A user defined pattern generator is included, in which patterns can be created and used to modulate the carrier signal. This allows a uniquely tailored pattern of up to 16384 states to be created from the front panel, alternatively these can be imported using the digital interfaces or USB Flash drive port.

Digital modulation and modulation patterns can be continuous or triggered externally, internally, manually or remotely.



\*Digital modulation available with option TGR-U01.

# INCREASED COMPATIBILITY

## SCPI COMPATIBLE

The TGR205X V2 can be integrated into existing systems using the universal SCPI command set. An extensive library of commands can be used to simplify setups and automate systems, increasing productivity and reducing costs.

## LABVIEW & IVI DRIVER

An IVI-COM/IVI-C driver for Windows is included. This provides support for common high-level applications such as LabView\*, LabWindows\*, and Keysight VEE\*.

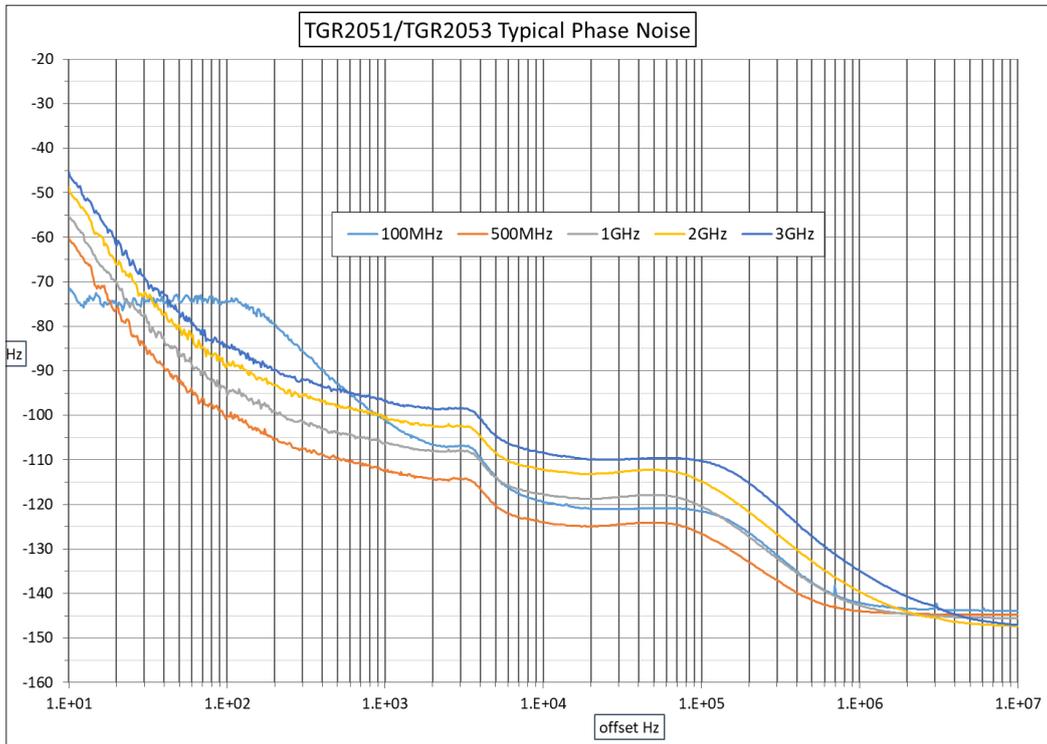
## COMPATIBILITY

Upgrading existing test and measurement systems is simple with the TGR2051 & TGR2053 V2. They can seamlessly replace legacy Aim-TTI RF generators, TGR2050 and TGR1040, in an existing system using the legacy remote command sets.

## TECHNICAL SPECIFICATION

Technical specification marked with † applies to firmware version 2 (V2) only. To upgrade from version 1 to 2, please contact Aim-TTI support.

FREQUENCY		
Frequency Range:	TGR2053	150kHz – 3000MHz
	TGR2051	150kHz – 1500MHz
Setting Resolution:	10Hz	
Setting Resolution Low Spur mode:	1MHz	
Accuracy/stability:	see Reference Frequency	
Residual FM:	<2 Hz @ 1GHz- Equivalent peak deviation in a 300Hz to 3.4kHz bandwidth.	
Phase Noise @ 10KHz offset:	500MHz Carrier:	<-124dBc/Hz (Typ.)
	1GHz Carrier:	<-117dBc/Hz (Typ.)



## STORAGE

4GB of non-volatile internal memory is provided for storing multiple setups, sweep lists, arbitrary modulation patterns and more. Up to 1000 complete setups can be stored internally.



## ACCESSORIES

This instrument can be rack mounted, a suitable 2U 19" rack kit is available from the manufacturers or their overseas agents.

\* LabView and LabWindows are trademarks of National Instruments. Keysight VEE is a trademark of Keysight Technologies. Windows is a trademark of Microsoft. \*\* GPIB optional

## REFERENCE FREQUENCY

Internal Reference Accuracy:	<± 1ppm, 15°C – 30°C <± 2ppm, 5°C – 40°C
Internal Reference Stability:	<1ppm/year
Reference IN & OUT:	Both can be disabled when not required.
Reference IN Rear Panel BNC:	10MHz +/- 25ppm, 50Ω input impedance, 2- 5Vpp Automatic detection and selection when an external reference signal is present and Ref. Clock is selected to be EXTERNAL. LCD status indicator shows when external reference is active.
Reference OUT Rear panel BNC:	10MHz, 50Ω output impedance, >2Vpp into 50Ω The active reference signal (from internal or external source) is present when Ref. Clock Out is selected to be ON.

## OUTPUT LEVEL

Output Level Range:	-127dBm to +13dBm
Setting Resolution:	0.1dB, 0.01uV –1mV

## AMPLITUDE FLATNESS AND ACCURACY † :

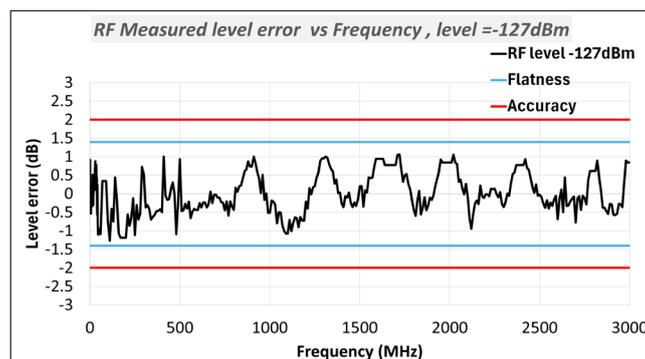
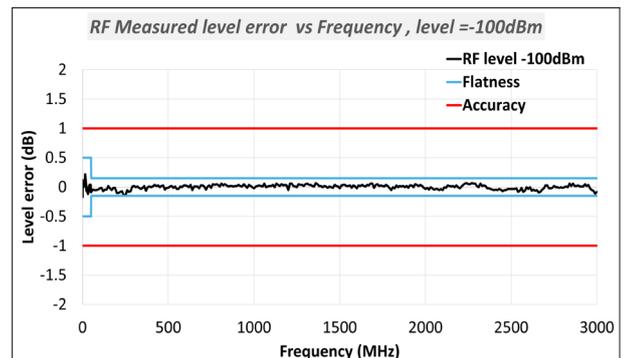
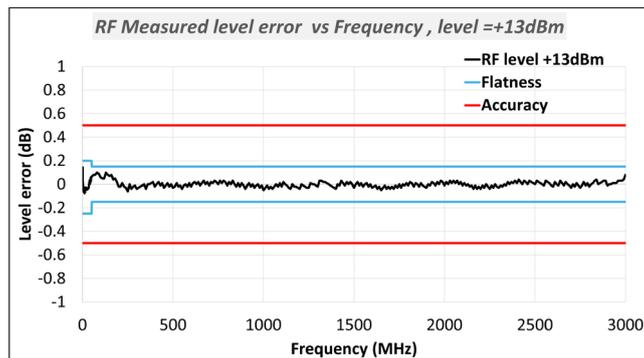
### FLATNESS<sup>1</sup>: (TYP.)

Frequency Range	Output Levels	Flatness (Typ.)
≤ 50MHz	+13dBm to -50dBm	±0.2dB (Typ.)
	<-50dBm to -110dBm	±0.5dB (Typ.)
	<-110dBm to -127dBm	±1.4dB (Typ.)
>50MHz to 3000MHz	+13dBm to -100dBm	±0.15dB (Typ.)
	<-100dBm to -127dBm	±1.4dB (Typ.)

### ACCURACY<sup>1</sup>:

Frequency Range	Output Levels	Accuracy (Typ.)	Accuracy
≤ 50MHz	+13dBm to -50dBm	±0.3dB (Typ.)	±0.5dB
	≤-50dBm to -110dBm	±0.75dB (Typ.)	±1.0dB
	≤-110dBm to -120dBm	±1.2dB (Typ.)	±1.5dB
	≤-120dBm to -127dBm	±1.7dB (Typ.)	±2.0dB
>50MHz to 3000MHz	+13dBm to -100dBm	±0.3dB (Typ.)	±0.5dB
	≤-100dBm to -110dBm	±0.75dB (Typ.)	±1.0dB
	≤-110dBm to -120dBm	±1.2dB (Typ.)	±1.5dB
	≤-120dBm to -127dBm	±1.7dB (Typ.)	±2.0dB
Additional Uncertainty AM, ASK & OOK ON:	+/-0.5dB		

<sup>1</sup> See page 11 for explanation of terms and measurement uncertainty information.



**HARMONICALLY RELATED SIGNALS:**

2nd Harmonics		
Output	Frequency Range	Level (Typ.)
+13dBm (CW Mode)	0.15MHz to < 300MHz	<-30dBc (Typ.)
	300MHz to < 700MHz	<-40dBc (Typ.)
	700MHz to <1600MHz	<-35dBc (Typ.)
	1600MHz to ≤ 6000MHz	<-40dBc (Typ.)
0dBm (CW Mode)	0.15MHz to < 210MHz	<-40dBc (Typ.)
	210MHz to < 550MHz	<-35dBc (Typ.)
	550MHz to < 1600MHz	<-40dBc (Typ.)
	1600MHz to < 5000MHz	<-50dBc (Typ.)
5000MHz to ≤ 6000MHz	<-60dBc (Typ.)	
3rd Harmonics		
Output	Frequency Range	Level (Typ.)
+13dBm (CW Mode)	0.15MHz < 10MHz	<-20dBc (Typ.)
	10MHz to < 900MHz	<-30dBc (Typ.)
	900MHz to < 5200MHz	<-40dBc (Typ.)
	5200MHz to ≤ 9000MHz	<-50dBc (Typ.)
0dBm (CW Mode)	0.15MHz to < 300MHz	<-40dBc (Typ.)
	300MHz to < 1350MHz	<-50dBc (Typ.)
	1350MHz to < 1750MHz	<-60dBc (Typ.)
	1750MHz to < 6300MHz	<-70dBc (Typ.)
6300MHz to ≤ 9000MHz	<-80dBc (Typ.)	
Non-harmonic Spurious		
"Low Spur Mode" with >10kHz offset from the CW	1MHz to 200MHz	<-55dBc (Typ.)
	200MHz to 400MHz	<-60dBc (Typ.)
	400MHz to 499MHz	<-65dBc (Typ.)
	499MHz to 3000MHz	<-70dBc (Typ.)
Standard mode with >10kHz offset from the CW	1.11MHz to 251.11MHz	<-60dBc (Typ.)
	251.11MHz to 370.11MHz	<-65dBc (Typ.)
	370.11MHz to 2999.11MHz	<-61dBc (Typ.)
Output Impedance:	50Ω	
VSWR <sup>2</sup> :	1.4:1 to 1.6:1 typ.	
RF Output Connector:	Type N Female	
Reverse Voltage Protection:	50V DC	
Output Switch:	RF OUT On/Off switch with LED showing ON status	
<sup>2</sup> See Table 2 for more detailed specification.		

**ANALOG MODULATION**

SOURCE	
Internal:	DDS generator providing sine, square, + Ramp, - Ramp, triangle 1mHz – 1MHz, Resolution 1mHz
	Signal available at MOD IN/OUT, 150Ω source impedance
External:	100Hz – 1MHz, 1dB relative to 1kHz, 1Vp-p for full scale
	10kΩ input impedance AC coupled

**FREQUENCY MODULATION**

Deviation:	1mHz – 1MHz subject to carrier frequency
Deviation Setting Resolution:	1mHz
Deviation Accuracy:	Ref freq accuracy +/- 1mHz for internal modulation ±2% for external modulation @ 1kHz, 1V p-p
Distortion:	<1% @ 1kHz modulation, 300 – 3.4kHz bandwidth.

**PHASE MODULATION**

Deviation:	0- 25.00 rad
Deviation Setting Resolution:	0.01 rad
Deviation Accuracy:	Ref freq accuracy ±0.1 rad for internal modulation ±2% for external modulation @ 1kHz, 1V p-p
Distortion:	<1% @ 1kHz modulation, 300 – 3.4kHz bandwidth

**AMPLITUDE MODULATION (LEVELS ≤+7dBm)**

Modulation Depth:	0 – 100%
Setting Resolution:	0.1%
Accuracy:	±1% for internal modulation ±2% for external modulation @ 1kHz, 1V p-p
Distortion:	≤1% @ ≤90% depth
<i>Frequency and/or Amplitude Sweep and Modulation can be turned ON simultaneously. For AM only Frequency sweep can be operated along with the modulation.</i>	

**DIGITAL MODULATION \*\***
**SOURCE**

Internal:	NRZ Patterns:	Square Wave, User Defined Pattern, 7-bit PRBS, 9-bit PRBS, 11-bit PRBS, 15-bit PRBS.
	User Defined Pattern:	16384 states can be created in the instrument or downloaded via the remote interfaces.
	Bit rate:	1mbits/sec – 1Mbits/sec
	Modulation signal available at MOD IN/OUT, 150 Ω source impedance	
External:	Input via MOD IN/OUT:	DC – 1Mbits/sec, >=2V, logic threshold +1.5V nominal.
		10kΩ input impedance

**INTERNAL MODULATION PATTERN TRIGGER**

Source:	External +ve edge, External –ve edge, Manual, via remote interface or Internal.	
	Internal trigger repeats at a programmable rate of 1 per 1us – 999.999999s	
Modes:	Immediate:	Modulation starts immediately.
	Triggered:	Modulation waits for a trigger event.
Trigger Types:	Infinite:	First trigger event starts the modulation pattern, which repeats indefinitely.
	Finite:	Each trigger event starts one modulation pattern (one 'block') or a count of bits in the modulation pattern. The bit count is programmable and can be greater than a pattern length.
		Bit count range:
Trigger Delay:	<500ns from specified edge of external trigger signal to modulation start.	

**INTERNAL MODULATION PATTERN SYNC**

Signal available from the rear panel SYNC BNC to synchronise internally produced modulation patterns.	
SYNC modes:	OFF, Start, Bit Rate, Bit Rate/2
SYNC polarity:	High going SYNC pulse
Start SYNC:	SYNC pulse 1 bit period wide at the start of the modulation pattern.
Bit Rate SYNC:	½-bit period wide pulses at the modulation bit rate repeated indefinitely or for a programmed repeat count from the start of the modulation pattern in triggered mode.
Bit Rate/2 SYNC:	As for Bit Rate SYNC but at half the modulation bit rate.

**FREQUENCY SHIFT KEYING**

Modes:	FSK, GFSK, MSK, GMSK, HMSK, 3FSK, 4FSK, Continuous phase frequency modulation.	
Filter Settings:	None, Gaussian (BT=0.3, 0.5 or 0.7), Raised Cosine (α =0.5 or 0.7), Root Raised Cosine (α =0.5 or 0.7), Half sine.	
Deviation:	1mHz – 1MHz subject to carrier frequency	
Deviation Setting Resolution:	1mHz	
Deviation Accuracy:	Ref freq accuracy ±1mHz for internal and external modulation	
4FSK Encoding:	Gray Code or Binary.	
Encoding Synchronisation Internal Modulation Source:	3FSK	Start SYNC output indicates the start of encoding
	4FSK	Bit Rate/2 SYNC output indicates the start of encoding
Encoding Synchronisation External Modulation Source:	3FSK 4FSK	The external Trigger input can be used to define the start of encoding for both.

**PHASE SHIFT KEYING**

Modes:	PSK
Deviation:	0- 25.00 rad
Deviation Setting Resolution:	0.01 rad
Deviation Accuracy:	Ref freq accuracy ±0.1 rad for internal and external modulation

**AMPLITUDE SHIFT KEYING (ASK)**

ASK Depth:	0- 100%
Setting Resolution:	0.1%
Accuracy:	±1% for internal and external modulation
Internal Rate:	1mb/s- 1Mb/s
External Rate:	DC – 1Mb/s

## ON-OFF KEYING (OOK) (BASIC PULSE MODULATION)

On-Off Ratio:	>80dB
External Input:	Logic high = Carrier On
Internal Rate:	1mB/s- 1Mb/s
External Rate:	DC – 1Mb/s
Rise/Fall Time:	50ns

*Frequency and/or Amplitude Sweep and Modulation can be turned ON simultaneously. For ASK and OOK only Frequency sweep can be operated along with the modulation. \*\* Digital modulations available with TGR-U01 option (see Option TGR-U01).*

## FREQUENCY AND AMPLITUDE SWEEP

Frequency settling time to within 100Hz or 0.1ppm of final frequency if greater:	<5ms*, typ <2ms
Amplitude settling time to within 0.2dB:	<5ms*, typ <4ms
Rear panel SYNC pulse width (defines guaranteed settling period):	5ms*
*Settling time and SYNC pulse width is extended to 15ms for all points in the sweep if the frequency crosses 250.00000MHz between any points in the sweep.	

## STEP SWEEP

Step frequency and/or amplitude according to a formula over a specified number of points.	
Number of Points:	2- 1000
Formula specifies:	Sweep Start and Stop Frequencies
	Sweep Start and Stop Amplitudes
	Dwell time following SYNC at each point
Dwell Time:	0.01 – 10.000sec
Sweep Mode:	Continuous or Single
Sweep Direction:	Up or Down
Sweep Point Spacing:	Linear or Logarithmic
Sweep Trigger: (Sweep start held until trigger event)	Manual, ext signal +ve or –ve edge, timed (0.01 – 999.9sec) or via remote interface
Point Trigger: (Sweep point stepping held until trigger event)	Manual, ext signal +ve or –ve edge, or via remote interface
Point Trigger timing:	>=10ms after SYNC signal
SYNC signal ('output stable'):	Available after output has settled at each point until next point. Programmable high or low logic.

## LIST SWEEP

As for Step Sweep except that a user defined table of frequency, amplitude and dwell time values defines the points. The table can be created within the instrument or downloaded via the remote interfaces. Max 1000 points.

## TRIGGER INPUT

Rear panel BNC accepts logic trigger signal for sweeps and modulation.

Trigger logic threshold: +1.6V

## REMOTE CONTROL INTERFACES

Full digital remote control facilities are available through the USB, LAN and GPIB (optional) interfaces using a SCPI style command set.

USB:	Standard USB 2.0 hardware connection. Operates as a virtual COM port.
LAN:	Ethernet 100/10base-T hardware connection.
GPIB (optional):	Conforming with IEEE488.1 and IEEE488.2

Settling time from remote command:

Frequency settling time to within 100Hz or 0.1ppm of final frequency if greater: <=15 ms typ <7ms

Amplitude settling time to within 0.2dB: <=15ms typ <4ms

## USB HOST INTERFACE

Front panel USB host interface for connection of USB Flash drives. Allows unlimited storage and transfer of instrument setups, sweep lists and user defined modulation patterns.

## OPTION TGR-U01

Makes available all digital modulation schemes with full trigger and SYNC capabilities listed under 'DIGITAL MODULATION'.

## GENERAL

Power:	85...264Vac, 47...63Hz, 35VA max. Installation Category II. Standby <0.5W
Display:	4.3 inch (10.9 cm) backlit TFT LCD, 480 x 272 pixels total, 16 colours, resistive touch screen.
Data Entry:	Multiple entry methods; keyboard or touch screen selection of all major functions; edit field selection by screen touch or rotary control; value entry by keyboard, rotary control or touch screen; frequency and amplitude adjustable by value entry, character scrolling, user defined step values or a combination.
Storage:	4G bytes internal storage available for 1000's of instrument setups, sweep lists and user defined modulation patterns.
Operating Range:	+5°C to +40°C, 20- 80% RH
Storage Range:	–20°C to + 60°C
Environmental:	Indoor use at altitudes up to 2000m, Pollution Degree 2.

EMC:	Complies with EN61326
Safety:	Complies with EN61010-1
Size:	W×H×D=86.5mm x213.5mmx290mm. 2U high, half rack width.
Weight:	3 kg
Options:	19-inch rack mounting kit.

**TABLE 2: VSWR**

VSWR @ 1MHZ			
	Pout (+13dBm to -20dBm)		Pout (-30dBm to -127dBm)
150kHz < f ≤ 3GHz	<1.5	150kHz < f ≤ 2GHz	<1.5
		2GHz < f ≤ 3GHz	<1.3
VSWR @ 1GHZ			
	Pout (+13dBm to -20dBm)		Pout (-30dBm to -127dBm)
150kHz < f ≤ 850MHz	<1.4	150kHz < f ≤ 2GHz	<1.5
850MHz < f ≤ 3GHz	<1.6	2GHz < f ≤ 3GHz	<1.3
VSWR @ 2GHZ			
	Pout (+13dBm to -20dBm)		Pout (-30dBm to -127dBm)
150kHz < f ≤ 3GHz	<1.5	150kHz < f ≤ 2GHz	<1.5
		2GHz < f ≤ 3GHz	<1.3
VSWR @ 3GHZ			
	Pout (+13dBm to -20dBm)		Pout (-30dBm to -127dBm)
150kHz < f ≤ 850MHz	<1.5	150kHz < f ≤ 2GHz	<1.5
850MHz < f ≤ 3GHz	<1.6	2GHz < f ≤ 3GHz	<1.3

**DEFINITION OF TERMS**

**Accuracy:**

Is the degree of closeness of the measurement to the target or reference value.

$Accuracy = \pm(\text{Max level} - \text{Target level})$

**Flatness:**

Specifies a tolerance zone defined by two parallel planes within which the measurements must lie.

$Flatness = \pm((\text{Max level} - \text{Min level})/2)$

**Calibration points (MHz):**

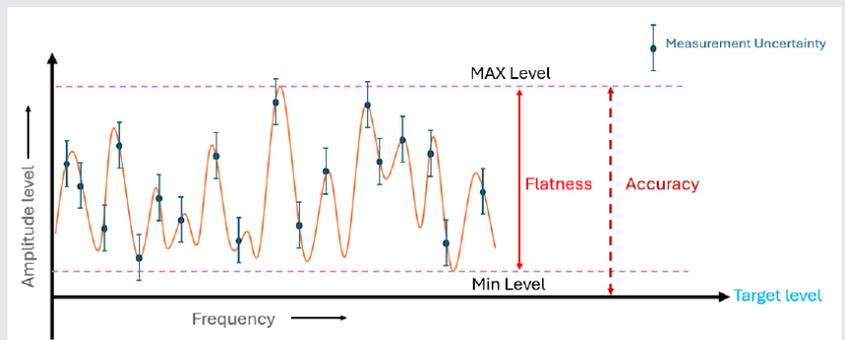
0.15	601	2001
0.35	701	2101
1	801	2201
2.2	901	2301
15	1001	2401
35	1101	2501
51	1201	2601
61	1301	2701
81	1401	2751
101	1501	2801
201	1601	2851
301	1701	2901
401	1801	2951
501	1901	2999

**Uncertainty:**

Indicates the measurement uncertainty limit for the specified measurand. The stated uncertainty, determined with a coverage factor of 2, has been evaluated in accordance with the Guide to the Expression of Uncertainty in Measurement (GUM), with consideration of environmental influences, component aging, and mechanical wear.

**<sup>1</sup>Typical (Typ):**

Typical (Typ) - refers to the performance values that represent the expected behaviour of a unit under standard operating conditions. These values are not guaranteed but are indicative of what most units will achieve during normal use. Typically, they are derived from testing and are meant to reflect the performance that can be expected from approximately 80% of the units produced with a 95 percent confidence level. Typical measurement does not factor in measurement uncertainty.



Specifications apply after storage at 5°C to 40°C for a minimum of 2 hours and a 60 minute warm-up prior to use. Thurlby Thandar Instruments Ltd. operates a policy of continuous development and reserves the right to alter specifications without prior notice.

## EXCELLENCE THROUGH EXPERIENCE

Aim-TTi is the trading name of Thurlby Thandar Instruments Ltd. (TTi), one of Europe's leading manufacturers of test and measurement instruments. The company has wide experience in the design and manufacture of advanced test instruments and power supplies built up over more than thirty years. The company is based in the United Kingdom, and all products are built at the main facility in Huntingdon, close to the famous university city of Cambridge.

## TRACEABLE QUALITY SYSTEMS

TTi is an ISO9001 registered company operating fully traceable quality systems for all processes from design through to final calibration.



ISO9001:2015

Certificate number FM 20695

## WHERE TO BUY AIM-TTI PRODUCTS

Aim-TTi products are widely available from a network of distributors and agents in more than sixty countries across the world.

To find your local distributor, please visit our website which provides full contact details.

[www.aimtti.com](http://www.aimtti.com)

Designed and built in Europe by:



**Thurlby Thandar Instruments Ltd.**

Glebe Road, Huntingdon, Cambridgeshire.

PE29 7DR United Kingdom

Tel: +44 (0)1480 412451 Fax: +44 (0)1480 450409

Email: [sales@aimtti.com](mailto:sales@aimtti.com) Web: [www.aimtti.com](http://www.aimtti.com)

