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Data Sheet
August 13, 2026

AEROFLEX

Aeroflex 2050T 1.35GHz Signal Generator

Aeroflex IFR 2050T Digital and Vector Signal Generator 10 kHz to 1.35 GHz The Aeroflex IFR 2050T isaTETRA oriented digital and vector signal generator covering 10 kHz to 1.35 GHz. It combines analog AM, FM, PM, and optional pulse modulation with IQ vector and internal DSP digital modulation, advanced digital TETRA pi/4 DQPSK, Rayleigh/Rician fading, and burst control for wireless receiver and component test. TETRA and digital radio receiver test; adjacent channel power and carrier leak verification; vector IQ modulation from external baseband; analog modulation stimulus to 1.35 GHz; production and R&D signal source with 5 or 10 MHz external reference. The Aeroflex IFR 2050T isaTETRA oriented digital and vector signal generator covering 10 kHz to 1.35 GHz. It combines analog AM, FM, PM, and optional pulse modulation with IQ vector and internal DSP digital modulation, advanced digital TETRA pi/4 DQPSK, Rayleigh/Rician fading, and burst control for wireless receiver and component test. TETRA and digital radio receiver test; adjacent channel power and carrier leak verification; vector IQ modulation from external baseband; analog modulation stimulus to 1.35 GHz; production and R&D signal source with 5 or 10 MHz external reference.

MODEL **Aeroflex 2050T**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **2050T**	LISTING **https://aumictechlabs.com/products/2050t-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Aeroflex 2050T is a digital and vector signal generator engineered for RF device development, digital communication system testing, and laboratory validation. Operating from 10

kHz to 1.35 GHz, it delivers precise frequency control with 100.0 mHz resolution and supports analog modulation (FM, ΦM, AM), digital modulation (FSK, PSK, QAM, GMSK), and vector IQ modulation. The instrument provides calibrated output power from −144 dBm to +13 dBm in analog mode, with extended ranges in digital/vector modes (−138 dBm to +6 dBm peak envelope power) and advanced digital modes.Designed for system integrators and RF engineers, the 2050T combines modulation versatility with stable frequency synthesis and flexible output control.Technical Specifications Frequency Range 10 kHz to 1.35 GHz (general carrier frequency) 50 MHz to 1.35 GHz in Digital and Advanced Digital modes 10 MHz to 1.35 GHz in Vector modes Frequency resolution: 100.0 mHz; displayed resolution 1 Hz minimum Digital/Vector mode resolution: 0.1 Hz Output Power (Calibrated) Analog mode: −144 dBm to +13 dBm Digital/Vector modes: −138 dBm to +6 dBm peak envelope power Advanced Digital mode: −144 dBm to −9 dBm AM modulation reduces maximum output linearly to +7 dBm at standard depth Uncalibrated analog mode: up to +19 dBm Modulation Capabilities Analog: FM, ΦM, AM Digital: FSK, PSK, QAM, GMSK Vector: IQ modulation with front-panel IQ inputs (50 Ω or 300 Ω selectable impedance) TETRA support with π/4 Differential QPSK Pulse modulation: 25 ns rise/fall time (optional slow rise time: 1 µs typical) Internal PRBS data source; external digital data input available Baseband I & Q outputs; envelope control for RF burstsKey Features Frequency stability and precision suitable for demanding RF validation Dual modulation oscillators available as option Wideband DCFM for fast FSK applications RF level control without interruption over 24 dB maximum range Selectable input impedance for IQ modulationTypical Applications Digital communication system development and testing RF device characterization and validation Transceiver and receiver bench testing TETRA and digital radio system simulation

2050T Characteristics / Specifications

PARAMETER	VALUE
Model	2050T
Manufacturer	Aeroflex / IFR / Marconi
Instrument Type	Digital and Vector RF Signal Generator
Alias	2050T; IFR 2050T; Aeroflex 2050T
Frequency range	10 kHz to 1.35 GHz
Digital vector minimum frequency	10 MHz
Frequency resolution	0.1 Hz
Frequency indication	11 digits with annunciators
Analog RF output range	-138 dBm to +10 dBm
Digital vector PEP range	-132 dBm to +3 dBm
Advanced digital PEP range	-144 dBm to -9 dBm
Output accuracy analog	plus/minus 1.2 dB above -127 dBm at 22 plus/minus 5 C
Output accuracy digital vector	plus/minus 1.5 dB below 2 GHz; plus/minus 2 dB below 2.7 GHz
Level temperature coefficient	less than 0.04 dB perCVSWR below 0 dBm: less than 1.25:1 below 2.2 GHz
Reverse power protection analog	50 W into VSWR up to 5:1
Reverse power handling digital	1 W into VSWR up to 5:1
Adjacent channel power	less than -70 dBc at plus 25 kHz offset (100 to 490 MHz)
Carrier leak	better than -35 dBc (typical less than -38 dBc)
SSB phase noise analog	less than -116 dBc/Hz at 20 kHz offset (470 MHz typ -122)
Harmonics analog CW	less than -30 dBc below 1 GHz
Nonharmonics analog	less than -70 dBc at offsets 3 kHz or greater
External reference	5 MHz or 10 MHz selectable
Modulation modes	FM; wideband FM; PM; AM; pulse optional; IQ vector; digital; advanced digital
TETRA symbol rate	18 ksymbols/s with root raised cosine alpha 0.35

PARAMETER	VALUE
Display	dot matrix with softkeys; hardkeys and rotary control
Application personality	TETRA digital radio testing Notes Specs from IFR 2050 series datasheet (2050T variant). Confirm pulse option, fading personality, and external reference frequency on the unit.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Technical Specifications

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VSWR below 0 dBm	less than 1.25:1 below 2.2 GHz
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Application personality	TETRA digital radio testing

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Display	dot matrix with softkeys; hardkeys and rotary control
Application personality	TETRA digital radio testing

Notes

Specs from IFR 2050 series datasheet (2050T variant). Confirm pulse option, fading personality, and external reference frequency on the unit.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: **sales@aumictech.com** · +1 (484) 841-9341

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