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Data Sheet
August 13, 2026

AEROFLEX

Aeroflex CS25020F 18.00GHz Signal Generator

Aeroflex CS25020F Broadband Signal and Environment Generator 18 GHz The Aeroflex CS25020F is an 18 GHz class Broadband Signal and Environment Generator (BSG) combiningadeep memory high speed arbitrary waveform generator withabroadband RF upconverter and Vector Signal Simulator (VSS) software. It generates complex modulated, burst, hopped, and impaired RF environments for satellite, radar, and wideband wireless test with up to 500 MHz instantaneous bandwidth in the BSG family. Broadband satellite and frequency agile radio test; radar and EW scenario generation; playback of recorded environments with added impairments; automated test with up to 500000 frequency hops per second. The Aeroflex CS25020F is an 18 GHz class Broadband Signal and Environment Generator (BSG) combiningadeep memory high speed arbitrary waveform generator withabroadband RF upconverter and Vector Signal Simulator (VSS) software. It generates complex modulated, burst, hopped, and impaired RF environments for satellite, radar, and wideband wireless test with up to 500 MHz instantaneous bandwidth in the BSG family. Broadband satellite and frequency agile radio test; radar and EW scenario generation; playback of recorded environments with added impairments; automated test with up to 500000 frequency hops per second.

MODEL **Aeroflex CS25020F**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **CS25020F**	LISTING **https://aumictechlabs.com/products/cs25020f-2/**

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

NAICS 423690 · 811210 · 541380

This unit

The Aeroflex CS25020F is a precision RF signal generator delivering broadband signal generation and environmental simulation up to 18.00 GHz. Built on a software-defined architecture, this benchtop instrument combines real-time waveform synthesis with playback of recorded signals, enabling complex multi-domain testing in telecommunications, satellite communications, radar, and research environments. Engineers can import custom waveforms, apply realistic impairments, and execute rapid frequency transitions at rates up to 500,000 hops per second.Technical Specifications Maximum Frequency: 18.00 GHz Frequency Resolution: 1.0 Hz Instantaneous Bandwidth: 60 MHz SFDR (Spurious-Free Dynamic Range): 58 dB typical Output Impedance: 50 Ohm Signal Memory: Up to 88 seconds of full bandwidth storage on solid-state memory; extended playback to 150 minutes via streaming RAID configuration Frequency Hop Rate: Up to 500,000 hops per secondKey Features Modulation support: AM, FM, Pulse, Phase, FSK, I/Q, ASK, MSK, PSK, QAM Open waveform architecture for user-created signal import Real signal playback from Aeroflex Broadband Signal Analyzers or external recorded sources Signal impairment injection: thermal noise, phase noise, passband amplitude and phase distortion Vector Signal Simulator (VSS) software integration for commercial wireless standards and generic signal generation (nPSK, nQAM, nFSK, MSK, CW, tone combs, notched noise)Typical Applications Telecommunications system validation Satellite communications testing Radar signal simulation and analysis Advanced research and developmentCompatibility & Integration The CS25020F operates as a Broadband Signal and Environment Generator (BSG) with standard RF output connectors and supports software-defined control. Signal playback capability enables combination of recorded real-world signals with digitally generated test vectors, expanding test coverage beyond purely synthetic stimulus.

CS25020F Characteristics / Specifications

PARAMETER	VALUE
Model	CS25020F
Manufacturer	Aeroflex
Instrument Type	Broadband Signal and Environment Generator (BSG)
Alias	CS25020F; CS25020F-RF; Aeroflex CS25020F
Frequency range maximum	18 GHz
Frequency resolution	1 Hz
Instantaneous bandwidth family maximum	500 MHz
Bandwidth CS25020F RF listing	60 MHz
SFDR CS25020F RF typical	58 dB
Full bandwidth memory solid state	up to 88 seconds
Streaming RAID memory extension	up to 150 minutes
Frequency hop rate maximum	500000 hops per second
Modulation types	AM; FM; PM; pulse; FSK; IQ; ASK; MSK; PSK; QAM; OOK; SSB
Waveform software	Vector Signal Simulator (VSS)
Generic waveforms	nPSK; nQAM; nFSK; MSK; CW; tone combs; notched noise
Time control	continuous; burst; gated; frequency hopped sequences
Impairments	thermal noise; phase noise; passband amplitude/phase distortion; CW/co-channel interference; multipath
Architecture	real non I/Q upconversion (reduced image/leakage vs classic IQ mod)
Recording integration	Celerity CS35000F recorder playback class
Open architecture	user waveform import; software defined instrument
Related CS25150F	18 GHz BSG sibling listing in family
Related CS25080F RF	255 MHz bandwidth 45 dB SFDR typical variant
Carrier tuning	digital upconversion with frequency tuning control
Memory depth advantage	deepest memory RF/baseband sources (family marketing) Notes CS25020F-RF is the documented 18 GHz/60 MHz BSG variant name in

PARAMETER	VALUE
	Aeroflex literature; confirm RF output band, bandwidth option, RAID memory, and VSS license on the installed system.
Bandwidth	in the BSG family.

CS25020F Specifications

PARAMETER	VALUE
Key Features	18 GHz maximum RF frequency (CS25020F listing)
Up to 500 MHz instantaneous bandwidth in BSG family	Up to 88 seconds full bandwidth memory; RAID extension to 150 minutes
Technical Specifications	Model: CS25020F

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

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bandwidth option, RAID memory, and VSS license on the installed system.

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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