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Data Sheet
August 3, 2026

MARCONI / IFR / AEROFLEX

Marconi IFR Aeroflex NAV2000R Signal Generator

Marconi IFR Aeroflex NAV2000R Signal Generator The NAV-2000R (NAV2000R) provides an Aeroflex / IFR avionics NAV/COMM signal generator covering 150 kHz to 450 MHz for testing ADF, Marker Beacon, VOR, Localizer, Glideslope, HF/VHF/UHF COMM, and SELCAL receivers. DSP-based generation supports Morse-code IDENT, marker tones, two-tone modulation, and full GPIB remote control of features. Avionics bench and ramp NAV/COMM receiver testing; VOR/ILS/MB/ADF/SELCAL stimulus; COMM receiver sensitivity and selectivity checks. The NAV-2000R (NAV2000R) provides an Aeroflex / IFR avionics NAV/COMM signal generator covering 150 kHz to 450 MHz for testing ADF, Marker Beacon, VOR, Localizer, Glideslope, HF/VHF/UHF COMM, and SELCAL receivers. DSP-based generation supports Morse-code IDENT, marker tones, two-tone modulation, and full GPIB remote control of features. Avionics bench and ramp NAV/COMM receiver testing; VOR/ILS/MB/ADF/SELCAL stimulus; COMM receiver sensitivity and selectivity checks.

MODEL **Marconi / IFR / Aeroflex NAV2000R**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **NAV2000R**	LISTING **https://aumictechlabs.com/products/nav2000r-2/**

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

NAICS 423690 · 811210 · 541380

This unit

The Marconi IFR Aeroflex NAV2000R is a signal generator purpose-built for testing and calibrating avionics navigation and communication systems across a broad operational spectrum. It

generates accurate simulations of ADF, Marker Beacon, VOR, LOC, Glideslope, and HF/VHF/UHF signals, serving maintenance, development, and laboratory environments with both manual and automated control.Technical Specifications Frequency Range: 150 kHz to 450 MHz RF Output Level: -127 dBm to 0 dBm (standard); -127 dBm to +7 dBm (optional extended output). Resolution: 0.1 dB Signal Purity: Harmonics: <-30 dBc Non-Harmonics (Spurious): 5 kHz Operating Temperature: 5 °C to 40 °C Storage Temperature: -20 °C (lower limit specified)Key Features VOR Modulation: 30 Hz variable and 9960 Hz modulation with programmable frequency and percentage control; 1020 Hz tone with Morse Code Ident. Localizer & Glideslope: 90 Hz and 150 Hz modulation displayed in DDM or percent; phase control on both frequencies; 1020 Hz tone with Morse Ident. LOCa mode allows audio composite output variation with fixed attenuator. ADF: Variable modulation tones from 10 Hz to 18 kHz; 1020 Hz (default 1000 Hz) with programmable Morse Code. Marker Beacon: Pulsed tones at 400 Hz (outer), 1300 Hz (middle), and 3000 Hz (inner) with ident capability. COMM: Modulation tones from 10 Hz to 18 kHz; two-tone capability for HF. SELCAL Option: ARINC 714-6 selective calling tone setup. Storage & Recall: Up to 249 user-stored test setups (49 per mode).Typical Applications Airborne and ground-based avionics receiver testing, navigation system calibration, communication system verification, and production acceptance testing.Compatibility & Integration Front-panel controls with electroluminescent display. IEEE-4888 (GPIB) interface enables remote operation and integration with automated test equipment (ATE) systems.

Features & description

From manufacturer datasheet

Features

• Frequency range: 150 kHz to 450 MHz • Frequency resolution: 10 Hz class (published NAV-2000R summaries) • Modes: VOR, LOC, GS, MB, COMM, SELCAL, ADF • Morse IDENT in VOR/LOC/ADF; pulsed marker tones; two-tone COMM; SELCAL • Store/recall: 49 setups per mode (294 total) class • GPIB full remote control; DSP architecture • Output level accuracy (published): ±1.0 dB (0 to −64 dBm); ±2.0 dB (−64 to −110 dBm); ±3.0 dB (−110 to −127 dBm) • Harmonics: < −30 dBc class (published summaries) • Front-panel video level control for use with converters

NAV2000R Characteristics / Specifications

PARAMETER	VALUE
Model	NAV2000R / NAV-2000R
Manufacturer	Marconi / IFR / Aeroflex (Viavi lineage in later catalogs)
Instrument Type	Avionics NAV/COMM Signal Generator
Alias	NAV2000R; NAV-2000R Frequency
Range	150 kHz to 450 MHz
Resolution	10 Hz (published) Modes / Functions VOR, Localizer (LOC), Glideslope (GS), Marker Beacon (MB), COMM, SELCAL, ADF IDENT Morse generation; marker audio tones; two-tone modulation; SELCAL in COMM
Level / Spectral (published summaries	confirm on certificate)
Level Accuracy	±1.0 / ±2.0 / ±3.0 dB by level band as above
Harmonics	< −30 dBc class (published summaries)
SSB phase noise class	published dealer summaries cite performance suitable for avionics receiver test Control / Memory GPIB remote of all features Front-panel store & recall (~49 per mode / ~294 total) Power / Environment (typical published) AC: 100–240 VAC, 50/60 Hz class (confirm nameplate)
Interfaces	GPIB; some configs list RS-232/USB Standard Operating Conditions Use 50 Ω RF loads. Select correct avionics mode and channel/frequency pairs for the DUT (VOR/LOC/GS channel plans). Operational Notes Optioned variants (e.g. NAV-2000R-70 with 479S-6A) may add features–verify option labels. Do not confuse with NAV-750C / 2030 Option 6 generators.
Frequency range	150 kHz to 450 MHz
Frequency resolution	10 Hz class (published NAV-2000R summaries)
Modes	VOR, LOC, GS, MB, COMM, SELCAL, ADF
Store/recall	49 setups per mode (294 total) class
Output level accuracy (published)	±1.0 dB (0 to −64 dBm); ±2.0 dB (−64 to −110 dBm); ±3.0 dB (−110 to −127 dBm)

NAV2000R Specifications

PARAMETER	VALUE
Marconi IFR Aeroflex NAV2000R Signal Generator	Overview
Applications	Avionics bench and ramp NAV/COMM receiver testing; VOR/ILS/MB/ADF/SELCAL stimulus; COMM receiver sensitivity and selectivity checks.
Key Features	- Frequency range: 150 kHz to 450 MHz
Technical Specifications	Model: NAV2000R / NAV-2000R
Frequency	Range: 150 kHz to 450 MHz
GPIB remote of all features	Front-panel store & recall (~49 per mode / ~294 total)
Power / Environment (typical published)	AC: 100–240 VAC, 50/60 Hz class (confirm nameplate)
Standard Operating Conditions	Use 50 Ω RF loads. Select correct avionics mode and channel/frequency pairs for the DUT (VOR/LOC/GS channel plans).

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

Specifications

PARAMETER	VALUE
Model	NAV2000R / NAV-2000R
Manufacturer	Marconi / IFR / Aeroflex (Viavi lineage in later catalogs)
Instrument Type	Avionics NAV/COMM Signal Generator
Alias	NAV2000R; NAV-2000R

Frequency
Range: 150 kHz to 450 MHz
Resolution: 10 Hz (published)

Modes / Functions
VOR, Localizer (LOC), Glideslope (GS), Marker Beacon (MB), COMM, SELCAL, ADF
IDENT Morse generation; marker audio tones; two-tone modulation; SELCAL in COMM

Specifications

PARAMETER	VALUE
Level / Spectral (published summaries	confirm on certificate)
Level Accuracy	±1.0 / ±2.0 / ±3.0 dB by level band as above
Harmonics	< −30 dBc class
SSB phase noise class	published dealer summaries cite performance suitable for avionics receiver test

Control / Memory
GPIB remote of all features
Front-panel store & recall (~49 per mode / ~294 total)

Power / Environment (typical published)
AC: 100–240 VAC, 50/60 Hz class (confirm nameplate)
Interfaces: GPIB; some configs list RS-232/USB

Standard Operating Conditions
Use 50 Ω RF loads. Select correct avionics mode and channel/frequency pairs for the DUT (VOR/LOC/GS channel plans).

Operational Notes
Optioned variants (e.g. NAV-2000R-70 with 479S-6A) may add features–verify option labels. Do not confuse with NAV-750C / 2030 Option 6 generators.

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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Generated August 3, 2026