



ANS SERIES-VOR/ILS/ MARKER RECEIVER





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For critical flight regimes, HAL's ANS series VOR-ILS systems provide today's flight crews with dependable, highly accurate bearing and landing information. This real-time system enhances operational safety during all-weather approaches and Landings.

The ANS family of VOR/ILS/MKR systems are recognized as a value added solution on multiple military platforms. The ANS series systems quickly gained acceptance as robust VOR-ILS solution and are installed on a multitude of platforms including SU-30, MIG-29UPG, MIG-29K/KUB, IJT, LCA (A/F), LCA (NAVY), MIG-21UPG (BISON), JAGUAR/DARIN-III, HAWK-AJT.

The ANS 1100A/ANS1101A/ANS2810A/ ANS2820A is a proven design derived from extensive experience in navigation, precision approach and landing systems.

Solid-state modular design and rugged construction provide long life, high reliability and excellent maintainability for both new and retrofit applications on fixed-wing aircrafts.

The receiver combines all VOR/ILS/MKR functions in one compact, lightweight, low cost system.

The ANS series meets multiple stringent MIL-STD requirements assuring peak performance under the harshest Military aircraft environments. With support for both analog and digital interfaces, the ANS is compatible with a variety of aircraft architectures. The ANS 1100A/ANS1101A/ANS2810A/ANS2820A is available to meet FM broadcast Immunity requirements as defined in ICAO Annex10.

Combination of our rich experience with latest digital technology makes HAL VOR/ILS/ Marker Receiver the affordable choice for users.

Key Features

- ✧ Low power, lightweight solid-state design
- ✧ Digital Radial/bearing Output
- ✧ Intensive Self-test and BIT
- ✧ FM broadcast immunity per ICAO Annex 10
- ✧ Marker receiver for runway approach
- ✧ VOR receiver for route navigation
- ✧ ILS receiver for landing
- ✧ DSP technology
- ✧ No of channels : VOR : 160 channels
LOC / GS: 40 channels
- ✧ MIL-STD-1553B / ARINC-429 interface
- ✧ VOR as per RTCA DO-196
- ✧ LOC as per RTCA DO -195
- ✧ GS as per RTCA DO -192
- ✧ Marker as per RTCA DO -143

Additional Options:

- ✧ ARINC based VOR/ILS controller
- ✧ ARINC based Interface Unit (IFU) to drive the INPR display



VOR/ILS



RAM 2700A



IFFT 2410A



ACS-235



TACAN



DACS



ADU

Specifications

PHYSICAL SPECS	
Dimensions	318mm x 194mm x 57.2mm (1/4 ATR short)
Weight	NMT 3.3 Kg (without mounting tray) NMT 4.3 Kg (with mounting tray)
ELECTRICAL SPECS	
Power Supply	28 V DC as per MIL-STD-704D
Power Consumption	35 W (Max)
Current Rating	1.2 A Max at 28 V DC
INTERFACE	
Digital Outputs	MIL-STD-1553B, ARINC 429
Audio Output	ILS/VOR : 1 to 100mW (adjustable)/600 ± 20 Ω MARKER: 10 to 100mW (adjustable)/600± 20 Ω
SYSTEM PARAMETERS	
Frequency Range:	LOC : 108.10 to 111.95 MHZ GLIDE : 329.15 to 335 MHZ VOR : 108.00 to 117.95 MHZ MKR : 75 MHZ
Number of channels	LOC:40 GLIDE:40 VOR:160

Sensitivity:	LOC: - 99dBm Glide: - 87dBm VOR: - 99dBm MKR: - 67dBm±3dBm (High Sensitivity), -53dBm ±3dBm (Low Sensitivity)
Accuracy:	LOC: - 72dBm to-33dBm< 5% off STD DEF Glide: - 76dBm to-33dBm<13% VOR: - 93dBm to-27dBm< ±3°
Self-test	POST, IBIT and CBIT.
QUALIFICATION and COMPLIANCE	
EMI/EMC	MIL-STD 461
Environmental	MIL-STD 810F
Reliability(MTBF)	>5000 Hours as per as per MIL HDBK 217
PLATFORMS	SU-30 MKI, MIG-29UPG, MIG 29K/KUB, IJT, LCA (A/F), LCA (NAVY), MIG-21UPG(BISON), JAGUAR/DARIN-II/DARIN-III, HAWK-AJT



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