



NC 12

TACAN Transceiver



- STANAG 5034
MIL-STD 291B
- 3 MCU
- D0178B/D0254
- MIL-STD/D0160D
qualification
- Ground to Air & Air to Air
functions (range & bearing)
- Flexible interface
- HIRF protection
- Modular architecture
- Full Set of ancillaries



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PRESENTATION

The NC 12 TACAN transceiver has been designed for use on fixed-wing and rotary-wing aircraft with respect to the latest requirements in terms of development methodology (DO178B/DO254). It is also not submitted to US ITAR regulations.

It can be connected to navigation computers to perform:

- Missions where no ground-fixed Navigation-aids exist, using mobile or tactical beacons,
- Approach and landing on airports, aircraft carriers, offshore platforms,
- Refuelling missions using an airborne TACAN beacon in the tanker aircraft.

The system can be operated either with a dedicated or a centralised control unit.

Compact and lightweight, the TACAN NC 12 fully complies with STANAG 5034 / MIL-STD-291 and is the culmination of THALES' long history in Navigation. It is able to deliver a peak power of 500W in emission. This all-digital system is proposed with different interfaces: 1553B, ARINC 429, rear connector (NC12B) or front connector (NC12E).

A jamming warning indicates the integrity of the data to the pilot. Its modular design, built-in test equipment and ATE testability make the NC 12 highly reliable and minimize servicing.

ANCILLARIES

- **NR 13 (Control box)**
144 x 63 x 57 mm - 0.7 kg
- **NR 10 (Indicator)**
152 x 82 x 40 mm - < 0.5 kg
- **NR 15 (Mounting tray)**
- **BTE 2000 (Maintenance Test Bench)**



NR 13



NR 10

GENERAL CHARACTERISTICS

Design specification	STANAG 5034 MIL-STD 291B
Number of channels	126 X-channels 126 Y-channels Provision for W and Z channels

TRANSMITTER	
Frequency range	1025-1150 MHz
Output power	500 W
Frequency stability	±25 KHz
Tracking rate	range = up to 4500 knots bearing = up to 20° /s

RECEIVER	
Frequency range	962 – 1213 MHz
Sensitivity	range = - 90 dBm bearing = - 87 dBm
Acquisition time	range = 1 s bearing = 5 s
Accuracy	range = 0.1 NM bearing = 1°
Dynamic memory	range = 10 s ± 2 s bearing = 10 s ± 2 s

INTERFACES	1553B, ARINC 429
Built-in antenna control switch	Internal or external

ENVIRONMENT

COMPLIES WITH MIL-STD 810 D / DO160D	
Operating temperature	-40°C to + 71°C
Altitude	70 000 feet
EMI	MIL-STD 461/DO160D

ELECTRICAL	
Power supply	28 V DC – 1.4 A – 40 W

PHYSICAL

Mechanical Dimensions (LxWxH)	Weight
NC 12B (ARINC429/rear connector)	
318 x 91 x 193 mm	5.5 kg
12.5 x 3.6 x 7.6 inches	12 lbs
NC 12E (ARINC429 or 1553 B/front connector)	
251.5 x 90.4 x 193.5 mm	6.2 kg
13.8 x 3.56 x 7.6 inches	13.7 lbs



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