EC Declaration of Suitability for Use

Name and Address of the Manufacturer or Air Navigation Service Provider (if the latter is the manufacturer)	RHOTHETA Elektronik GmbH Dr.-Ingeborg-Haeckel-Str. 2 82418 Murnau Germany
Constituent / Scope	RT-1000 Multichannel DF-Channel Bearing Channel Unit of the Multi-Channel Direction Finder RHOTHETA RT-1000 Multichannel
System Allocation	Navigation Systems and Procedures

1. Common Information relating to the Constituent

1.1 Regulation Reference Number

Relevant Provisions of

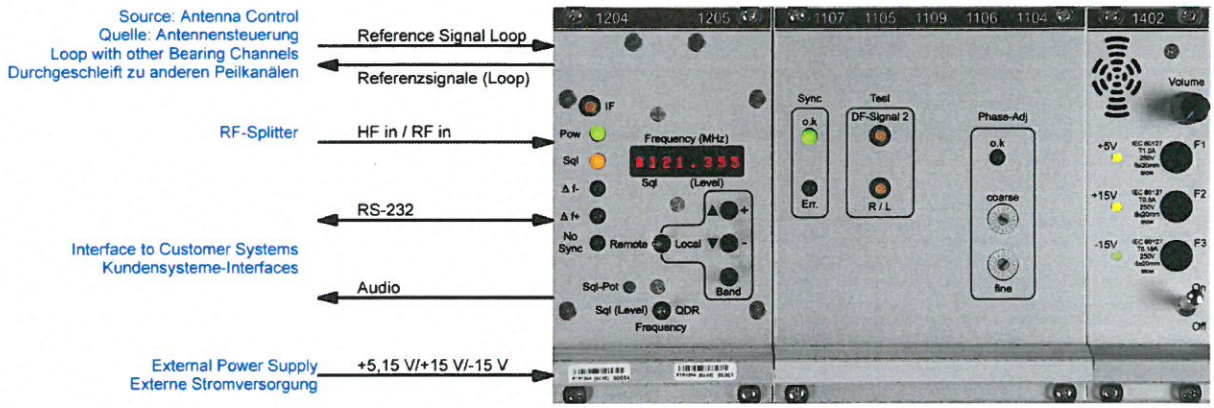
- Regulation (EC) No 552/2004 on the Interoperability of the European Air Traffic Management Network,
- Commission Implementing Regulation (EU) No 1079/2012 laying down requirements for voice channels spacing for the single European sky,
- Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC; to be implemented in national German law by the "Gesetz über die Bereitstellung von Funkanlagen auf dem Markt" (Funkanlagengesetz – FuAG).

1.2 Manufacturer Information

RHOTHETA Elektronik GmbH, Dr.-Ingeborg-Haeckel-Str. 2, 82418 Murnau, Germany

1.3 Description of the Constituent

Bearing Channel of the VHF Multi-Channel Direction Finder RHOTHETA RT-1000 Multichannel for the frequency range 118,000 – 136,975 MHz with 8,33 kHz and 25 kHz channel spacing capability.



The unit demodulates RF signals received from the antenna RTA 1300.A through the RT-1000 Multichannel RF Splitter. It receives and loops reference signals from the RT-1000 Multichannel Antenna Control. From the demodulated RF signals and the reference signals, it calculates bearing information. Status and bearing data are provided on a RS-232 interface which, in addition, is used for control, and receive signal audio is provided on an audio output. Additional interfaces for service purposes are described in the manual. The maximum reaction time between the start of a signal reception and completed output of averaged bearing values is 260 ms. This value has to be taken into account for network transfer and display of bearing data to maintain the 500 ms delay limit defined by DF certification rules.

The bearing channel is designed for 19" rack installation with an operational temperature range from -40°C to +60°C. Supply is provided through stabilized DC voltages of +5,15, +15 and -15 V.

1.4 Description of the Procedure followed in order to declare Conformity or Suitability for Use

- Conformity assessment procedure according to Annex II of Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC
- Conformity assessment according to the Regulation (EC) No 552/2004 on the Interoperability of the European Air Traffic Management Network.

1.5 Relevant Provisions

Following harmonised standards are applied according to Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC:

Health & Safety

EN 60950-1:2006 + A11:2009 + A1:2010 + A2:2013 + AC:2011 + A12:2011

EMC

EN 301 489-1 V1.9.2
EN 301 489-1 V2.2.0 (Draft)
EN 301 489-22 V1.3.1

Radio:

ETSI EN 300 676-1 V1.5.2
ETSI EN 300 676-2 V2.1.1

Other standards applied to development and qualification of the DF Channel are:

- National German authorisation rule "Bekanntmachung über die Anforderungen zur Musterzulassung von Funkpeilanlagen im Frequenzbereich 117,975 – 137 MHz", publicized in NfL II 43/03 (DFS)
- EUROCAE ED-109A: Software Integrity Assurance Considerations for Communication, Navigation, Surveillance and Air Traffic Management (CNS/ATM) Systems
- DIN EN 60068 Series environmental testing standards

1.6 Notified Bodies

1.7 Reference to the Community Specifications

1.8 Identification of the Signatory

Dipl.-Ing. (FH) Wolfgang Pichl, Managing Director RHOTHETA Elektronik GmbH

2. Declaration

RHOTHETA Elektronik GmbH, 82418 Murnau, Germany, hereby declares that the constituent described above was considered with regard to its suitability for use within the air traffic management environment.

Murnau, 2017-08-02	**Authorised Representative** Wolfgang Pichl