

PERFORMANCE SPECIFICATION
FOR GROUND-BASED VHF DIGITAL LINK (VDL)
MODE 2 RADIO EQUIPMENT



FOREWORD

1. This specification is prescribed under section 32D of the Telecommunications Ordinance (Cap 106) (“the Ordinance”) to set out the technical and evaluation requirements for VHF air-ground Digital Link (VDL) Mode 2 radio equipment. Radiocommunications apparatus falling into the scope of this specification, unless covered by other specification with more specific scope, shall meet the stipulated requirements.
2. Under the Ordinance, the possession or use of any radiocommunications apparatus or any apparatus emitting radio frequency energy must be covered by an appropriate licence issued by the Communications Authority (CA) with the exception of those specifically exempted from licensing under the Ordinance, such as those covered by the Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order.
3. At present, the Office of the Communications Authority (OFCA) operates a Hong Kong Telecommunications Equipment Evaluation and Certification (HKTEC) Scheme. Details of the HKTEC Scheme can be found in the information note OFCA I 421. Under the Scheme, suppliers or manufacturers of the radiocommunications apparatus shall apply for certification of their apparatus against this specification. The application procedures for certification of radiocommunications apparatus can be found in the information note OFCA I 401.
4. The CA may amend any part of this specification as and when it deems necessary.
5. In case of doubt about the interpretation of this specification, the methods of carrying out the test and the validity of statements made by the equipment manufacturers or suppliers about the equipment, the decision of the CA shall be final.
6. The HKCA specifications and information notes issued by the CA can be downloaded from OFCA’s website at <http://www.ofca.gov.hk>. Enquiries about this specification may be directed to –

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AMENDMENT TABLE

Item	Issue No.	Paragraph	Description
1.	Issue 1 [Month] 2013	All	First Release

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1. SCOPE

This specification sets out the minimum performance requirements for ground-based radio equipment (hereafter referred to as “the equipment”) using VHF Digital Link (VDL) Mode 2 for ground-air digital communications. The VDL Mode 2 system provide data communication exchanges between aircraft and ground-based systems. The scope of this specification is limited to ground-based stations. .

2. OPERATING FREQUENCIES

The equipment shall operate in the VHF frequency range 117.975 MHz to 137.000MHz with 25 kHz channel spacing.

3. TECHNICAL REQUIREMENTS

The equipment shall comply with operating frequencies and in paragraph 2 and shall meet the technical requirements as defined in “ICAO Standards and Recommendation Practices, Annex 10 to the Convention on International Civil Aviation -Aeronautical Telecommunications, Volume III – Communications Systems, Part I – Digital Data Communications Systems, Chapter 6 – VHF Air-ground Digital Link (VDL)”.

4. EVALUATION REQUIREMENTS

The equipment shall comply with the operating frequencies and technical requirements as specified in clauses 2 and 3. The equipment shall be evaluated in accordance with the technical requirements as specified in EN 301 841-3 “VHF air-ground Digital Link (VDL) Mode 2; Technical characteristics and methods of measurement for ground-based equipment; Part 3: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive” published by the European Telecommunications Standards Institute (ETSI) .

5. REFERENCE

- (a) ICAO Standards and Recommendation Practices, “Annex 10 to the Convention on International Civil Aviation – Aeronautical Telecommunications, Volume III – Communications Systems, Part I – Digital Data Communications Systems. Chapter 6 – “VHF Air-ground Digital Link (VDL)” published by the ICAO
- (b) ICAO Standards and Recommendation Practices, “Annex 10 to the Convention on International Civil Aviation – Aeronautical Telecommunications, Volume V – “Aeronautical Radio Frequency Spectrum Utilization” published by ICAO
- (c) EN 301 841-3 “VHF air-ground Digital Link (VDL) Mode 2; Technical characteristics and methods of measurement for ground-based equipment; Part 3: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive” published by the ETSI

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