

# APPLICATION FORM FOR TESTING TO I-ETS 300 220

Short Range Devices

Technical characteristics and test methods for radio equipment  
to be used in the 25 to 1000 MHz frequency range  
with power levels ranging up to 500 mW

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## APPLICATION FORM FOR TESTING TO I-ETS 300 220

The application form shall be used for equipment submitted for type testing in accordance with I-ETS 300 220 intended for the transmission of speech, telemetry, telecommand, etc., over a short range. The application form shall be completed by the applicant and submitted to a test laboratory accredited in accordance with EN45001 or ISO guide 25 or a national standard conforming to EN45001 or ISO guide 25.

PLEASE READ THE FOLLOWING NOTES:

*Note (a)*

More than one item of equipment may be required to be submitted for type testing where an equipment needs to be modified to provide connections to facilitate testing, i.e. measurements requiring direct connections to be made. In such cases a second un-modified equipment may be required for radiated. i.e. case or cabinet radiation or ERP (effective radiated power) measurements to be performed. Full details of modifications are to be provided, where applicable.

*Note (b)*

I-ETS 300 220 allows for variations in frequency range, maximum power, channel separation, etc., to reflect differing national regulatory requirements. Manufacturers producing equipment to this I-ETS may wish to offer an equipment of the same basic design in a number of different forms with different RF characteristics, such as the frequency range, channel separation, temperature range, transmitter power, etc. This is subsequently referred to as a family of equipments. Each equipment in the family must be given a unique Type Designation. In the case of equipment with different frequency ranges and channel separations, a separate set of test results will be required for each frequency range and each channel separation offered. In the case of equipment with different transmitter powers and temperature ranges, the procedures laid down in I-ETS 300 220 permit use of a single set of test results.

*Equipment with differing optional features*

If an applicant wishes to obtain type approval, on the basis of a single set of test results for a family of equipments derived from the same basic design, where the equipments in the family have different operational features, such as audio output powers, which are not a requirement of I-ETS 300 220, then the following considerations shall be observed.

- i) Any operational feature in hardware or software, which can affect any of the performance parameters (not including signalling), shall be clearly defined by the applicant at the time of application. This will enable the National Regulatory Authority to determine whether further testing is needed.
- ii) It is further intended to provide systematic guidance on the above in an ETSI Technical Report, to be produced in consultation with CEPT WGRR. It is intended to periodically revise the Technical Report as new operational features are developed.

*Note (c) -Speech part of the equipment*

In the case of combined full bandwidth analogue speech/full bandwidth non-speech equipment, adjacent channel power (Subclause 7.5), shall be measured for both combinations.

*Note (d)*

## ACCESSORIES

It is the applicant's responsibility when submitting, equipment(s) to the test laboratory to provide appropriate connectors or alternative coupling arrangements to facilitate the connection of test equipment by the test laboratory to the equipment under test (E.U.T.). This should enable:

- i) access to the equipment RF power output (transmitter);
- ii) operation of the equipment to transmit (transmitter);
- iii) access to the equipment modulator input;
- iv) access to the analogue output of the RF part;
- v) coupling arrangement (e.g. optical or acoustic coupling for equipment having no external audio connection),
- vi) means of connecting the equipment to an external power supply;
- vii) means of turning the modulation and signalling ON/OFF, if applicable.

*Note (e)*

For type approval to be granted on the basis of tests conducted on a preproduction model, that model must be manufactured to the same production drawings and manufacturer's specification as the later production models.

Where this is not the case the National Regulatory Authority reserves the right to require either partial or full type testing to be carried out on the final production models.

*Note (f)*

It is the applicant's responsibility to ensure that the equipment meets all the regulatory requirements for marking in the country where type approval is being sought.

<b>APPLICANT'S DETAILS</b>		
CATEGORY OF APPLICANT (please tick relevant box opposite)	(a) <input type="checkbox"/>	MANUFACTURER
	(b) <input type="checkbox"/>	IMPORTER
	(c) <input type="checkbox"/>	DISTRIBUTOR
	(d) <input type="checkbox"/>	AGENT
COMPANY NAME .....		
ADDRESS .....		
NAME FOR CONTACT PURPOSES .....		
TELEPHONE No: .....		FAX No: .....
TELEX No: .....		

If box (a) is ticked and the equipment is manufactured at a different address to that of the applicant, or if box (b), (c) or (d) is ticked, complete details in the box below with respect to the manufacturer.

<b>MANUFACTURER'S DETAILS</b>	
COMPANY NAME .....	
ADDRESS .....	
.....	
.....	
NAME FOR CONTACT PURPOSES .....	
TELEPHONE No: .....	
FAX No: .....	
TELEX No: .....	

<b>INTENDED USE (For information only)</b>	
Details .....	
Product brochures included	<input type="checkbox"/> Yes <input style="margin-left: 100px;" type="checkbox"/> No

**TYPE DESIGNATION**

(See Note 1)

The type designation may be either a single alphanumeric code or an alphanumeric/code divided into two parts.

Please fill in

EITHER TYPE DESIGNATION AS A SINGLE ALPHANUMERIC CODE:

+-----+  
+-----+

OR TYPE DESIGNATION IN TWO PARTS:

1. EQUIPMENT SERIES No. (See Note 2)

+-----+  
+-----+

2. EQUIPMENT SPECIFIC No. (See Note 3)

+-----+  
+-----+

- Note 1 This is the manufacturer's numeric or alphanumeric code or name that is specific to a particular equipment. It may contain information in coded form on the characteristics of the equipment e.g. frequency, power. The manufacturer is free to choose the form of the type designation.
- Note 2 This is the number, code or trade name used by the manufacturer to describe a series or 'family' of equipment of substantially the same mechanical and electrical construction which will include a number of related equipments. This number is often referred to as the "model no."
- Note 3 This is the manufacturer's identification number given to a specific equipment in the series or 'family' of equipments. It is often referred to as the "identification number".

**TYPE APPROVAL TO OTHER ETS**

Has the equipment been previously type approved to any other ETS or I-ETS ?

Yes

No

If Yes please provide details of the previous type approval.

.....  
.....

<b>EXTREME TEMPERATURE RANGE</b> (over which equipment is to be type tested)		
<input type="checkbox"/>	Category I (General)	-20°C to +55°C
<input type="checkbox"/>	Category II (Portable equipments)	-10°C to +55°C

<b>CONSTRUCTION OF EQUIPMENT</b>	
<input type="checkbox"/>	Single unit (See Note 4)
<input type="checkbox"/>	Multiple units
If multiple units describe each one clearly	

Note 4

"UNIT" means a physically separate item of the equipment. The equipment under test may consist of two separate units. For example a car alarm with automatic paging consists of two units; the portable transceiver and associated mobile transceiver.

In this particular case additional sheets covering the transmitter and receiver characteristics for both units would be required, if unit 1 and unit 2 are covered by the same TYPE DESIGNATION.

<b>TYPE OF EQUIPMENT</b>					
<b>FIXED STATION</b>					
<input type="checkbox"/>	Transmitter	<input type="checkbox"/>	Simplex	<input type="checkbox"/>	Integral antenna
<input type="checkbox"/>	Receiver	<input type="checkbox"/>	Duplex	<input type="checkbox"/>	Single antenna connector
<input type="checkbox"/>	Transceiver			<input type="checkbox"/>	Two antenna connector
<b>MOBILE STATION</b>					
<input type="checkbox"/>	Transmitter	<input type="checkbox"/>	Simplex	<input type="checkbox"/>	Integral antenna
<input type="checkbox"/>	Receiver	<input type="checkbox"/>	Duplex	<input type="checkbox"/>	Single antenna connector
<input type="checkbox"/>	Transceiver			<input type="checkbox"/>	Two antenna connector
<input type="checkbox"/>	Remote Control Head				
<b>PORTABLE STATION</b>					
<input type="checkbox"/>	Transmitter	<input type="checkbox"/>	Simplex	<input type="checkbox"/>	Integral antenna
<input type="checkbox"/>	Receiver	<input type="checkbox"/>	Duplex	<input type="checkbox"/>	Single antenna connector
<input type="checkbox"/>	Transceiver			<input type="checkbox"/>	Two antenna connector
<input type="checkbox"/>	Battery charger		<input type="checkbox"/>	<input type="checkbox"/>	Vehicle battery adaptor

**TRANSMITTER TECHNICAL CHARACTERISTICS**

**FREQUENCY CHARACTERISTICS**

Method of frequency generation

CRYSTAL

SYNTHESIZER

OTHER .....

Transmitter frequency alignment range (see subclause 4.1.2 of Standard)

.....

Transmitter channel switching frequency range (see subclause 4.1.2 of Standard)

.....

CHANNEL SEPARATION .....

State the maximum number of channels over which the equipment can operate

.....





**TRANSMITTER MODULATION INPUT CHARACTERISTICS - DIGITAL**

Modulation bit rate .....bit/s

Type of modulation:

**SUBCARRIER:**

MSK  Yes  No

FFSK  Yes  No

**DIRECT:**

Direct FSK  Yes  No

GMSK  Yes  No

Generalised  
Tamed FM  Yes  No

Multilevel  
State FM  Yes  No

PLL-4PSK  Yes  No

8 PSK  Yes  No

Other .....





**POWER SOURCE (S)**

AC SUPPLY ..... State voltage  Single phase  
..... AC SUPPLY FREQUENCY (Hz)  Three phase

AND / OR

EXTERNAL DC SUPPLY

Nominal voltage ..... Extreme upper voltage .....

Extreme lower voltage .....

**BATTERY**

Nickel Cadmium

Lead acid

Leclanche

Lithium

Other

Details: .....

Extreme test voltages ..... DC (V)

..... Nominal DC Voltage (V)

..... DC Maximum Current (A)

**AUTOMATIC EQUIPMENT SWITCH OFF**

If the equipment is designed to automatically switch off at a predetermined voltage level which is higher or lower in value than the battery minimum voltage calculated values this shall be clearly stated.

Applies ..... Cut-off voltage

Does not apply

**DUPLEX OPERATION**

Is the equipment intended for

Duplex. operation  Yes

No

Is the equipment fitted with separate transmitter and receiver antenna sockets

Yes

No

Is the equipment fitted with a duplex filter as an integral part of the equipment with a single antenna connection socket

Yes

No

Is the duplex filter externally fitted and connected to the main equipment by co-axial cable(s)

Yes

No

If Yes state type and make of duplex filter

.....

**ALIGNMENT RANGE**

The definition of the alignment range AR1 and AR2 is given in subclauses 4.1.2 and 4.1.3 of the Standard. The applicant should ensure that the sample equipment(s) submitted is (are) operational on the appropriate frequencies as given in subclauses 4.1.5 through to 4.1.11 and tick the appropriate box.

- 4.1.5 One sample single frequency equipment of category AR1
- or 4.1.6 Three samples of single frequency equipment of category AR2
- or 4.1.7 One sample two frequency equipment of category AR1
- or 4.1.8 Three samples of two frequency equipment of category AR2
- or 4.1.9 One sample multifrequency equipment of category AR1
- or 4.1.10 Three samples of multifrequency equipment of category AR2
- or 4.1.11 One sample of multifrequency equipment of category AR2 where the switching range equals the alignment range

If more than one option of the equipment is being submitted with different Type Designations, one or three samples, as appropriate, of each version shall be submitted for testing.

**FREQUENCY IDENTIFICATION**

Each equipment, whether one or more submitted for tests, shall carry clear identification (such as a serial number), together with the frequency identification displayed on the equipment.

Equipment identification e.g. serial number	Channel No. (if applicable)	Transmit Nominal Freq. MHz	Receive Nominal Freq. MHz

**OTHER ITEMS SUPPLIED**

Spare batteries e.g. (portable equipment)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Battery charging device	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Special tools for dismantling equipment	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Encoder/Decoder	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Test interface box (if applicable)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Full documentation on equipment: Operating instructions	<input type="checkbox"/> Yes	<input type="checkbox"/> No
User manual	<input type="checkbox"/> Yes	<input type="checkbox"/> No
circuit diagrams	<input type="checkbox"/> Yes	<input type="checkbox"/> No
P.C. board layout, including component positioning	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Parts list	<input type="checkbox"/> Yes	<input type="checkbox"/> No
other	<input type="checkbox"/> Yes	<input type="checkbox"/> No

If Yes, please specify

.....

**DECLARATION**

Are the equipments submitted representative production models?

Yes

No

If not are the equipments pre-production models?

Yes

No

If pre-production equipments are submitted will the final production equipments be identical in all respects with the equipment tested

Yes

No

If no, supply full details of differences:

.....

**I hereby declare that I am entitled to sign on behalf of the applicant and that the information supplied is correct and complete.**

Signature .....

Name .....

Position held .....

Date .....