



Test Protocol

according to I-ETS 300220

HG 75430

Revision A (English)	Developed by: A.K.
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1 Results of Wireless Communication Testing

Equipment under test	HG 75430
Serial number	7543298
Ambient temperature	23° C
Relative humidity	58 %

Table 1 Header

1.1 Transmitter Frequency Error (Subclause 7.1)

- Power level at which the measurement has been performed: 400 mW
- Rated frequency: 434,475 MHz
- Power station

Test Conditions		Frequency Error (kHz)		
		434,475 MHz		
T _{nom} (23)° C	V _{nom} (5,0) V	+0,4		
T _{min} (-10)° C	V _{min} (4,5) V	-1,0		
	V _{max} (5,5) V	-1,0		
T _{max} (+55)° C	V _{min} (4,5) V	+0,6		
	V _{max} (5,5) V	+0,6		
Maximum freq. error (kHz)		-1,0		
Measurement uncertainty		±1x10 ⁻⁷		

Table 2 Transmitter Frequency Error

1.2 Limit (Subclause 7.1.3)

Frequency Separation (kHz)	Frequency Error Limit (kHz)				
	< 47 MHz	47 to 137 MHz	> 137 to 300 MHz	> 300 to 500 MHz	> 500 to 1000 MHz
10/12,5	±0,60	±1,00	±1,00(b) ±1,50(m) ±2,00(p)	±1,00(b) ±1,50(m) ±2,00(p)	Not applicable
20/25	±0,60	±1,35	±2,00	±2,00(bm) ±2,50(p)	±2,50(bm) ±3,00(p)

b = Fixed station; m = mobile station; p = portable station

Table 3 Limit (Subclause 7.1.3)

1.3 Transmitter carrier output power (conducted; Subclause 7.2)

Rated output power level (maximum) 500mW

Test Conditions		Transmitter Power (mW)		
Frequency (MHz)				
$T_{nom}(23)^{\circ}C$	$V_{nom}(5,0) V$	400,0		
$T_{min}(-10)^{\circ}C$	$V_{min}(4,5) V$	290,0		
	$V_{max}(5,5) V$	450,0		
$T_{max}(+55)^{\circ}C$	$V_{min}(4,5) V$	250,0		
	$V_{max}(5,5) V$	390,0		
Maximum deviation from output power under normal test conditions (dB)		1,7		
Maximum deviation from output power under extreme test conditions (dB)		2,8		
Measurement uncertainty		±1 dB		

Table 4 Transmitter Carrier Output Power

1.4 Limit (Subclause 7.2.3)

For normal or extreme test conditions

Class	Frequency range MHz	Power level conducted mW
I	25 to 1000	10
II	300 to 1000	25
III	25 to 1000	100
IV	300 to 1000	500

Table 5 Limit (Subclause 7.2.3)

1.5 Transmitter Adjacent Channel Power (signalling fitted; Subclause 7.5)

Power level at which the measurement has been performed: 400 mW

Channel separation: 25kHz (normal test conditions)

Test conditions	Measurement offset	Adjacent channel power (nW)		
		434,475 MHz		
Max. rated power	+(17) kHz	120		
	-(17) kHz	150		
Measurement uncertainty		±3 dB		

Table 6 Transmitter Adjacent Channel Power

1.6 Limit (Subclause 7.5.3)

Channel separation < 20 kHz	Channel separation >= 20 kHz
10 µW	200 nW

Table 7 Limit (Subclause 7.5.3)

1.7 Transmitter Spurious Emissions (conducted; Subclause 7.7.2)

Power level at which the measurement has been performed: 10 mW

Transmitter operating

Modulated / Unmodulated*

*(Delete whichever is inappropriate)

Spurious Emissions Level (nW)					
434,475 MHz					
f (MHz)	Level (nW)	f (MHz)	Level (nW)	f (MHz)	Level (nW)
306,075	10	868,950	1,6		
413,075	0,6	1303,425	1,6		
414,475	2				
424,475	5				
444,475	4				
454,475	2				
Measurement uncertainty			±3 dB		

Table 8 Transmitter Spurious Emissions

1.8 Limits (Subclause 7.7.5 Table 10)

47 MHz to 74 MHz 87,5 MHz to 118 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies <= 1000 MHz	Frequencies > 1000 MHz
4,0 nW	250 nW	1,00 µW

Table 9 Limits (Subclause 7.7.5 Table 10)

1.9 Receiver Spurious Radiation (Subclause 8.1)

Conducted

Spurious emissions level (nW)					
434,475 MHz					
f (MHz)	Level (nW)	f (MHz)	Level (nW)	f (MHz)	Level (nW)
160,000	0,16				
168,900	0,25				
413,075	0,25				
495,240	0,40				
Measurement uncertainty			±3 dB		

Table 10 Receiver Spurious Radiation

Bandwidth (kHz): this refers to the bandwidth of the measurement receiver.

1.10 Limit (Subclause 8.1.5)

Frequencies <= 1000 MHz	Frequencies > 1000 MHz
2,0 nW	20,0 nW

Table 11 Limit (Subclause 8.1.5)

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