LTK-1300HN_TRANSMITTER TUNE UP PROCEDURE
PERFORMANCE TEST

The procedure in this chapter allows the verification of the electrical performance of transmitter. These tests do not require access to the interior of the instrument.

Recommended test equipment

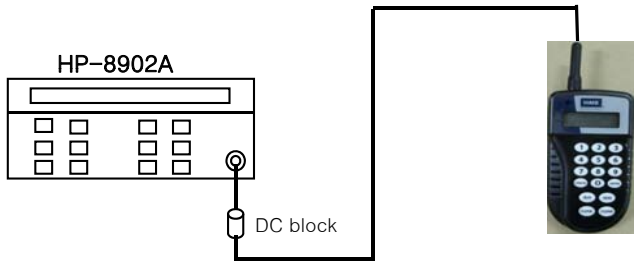
Description	Minimum specification	Model
Power meter	+ / - 0.2dB, - 60 to -20dBm. 100 KHz to 1GHz	HP-436A/8481D
Spectrum analyzer	100KHz to 12GHz, up to -120 dBm	HP-8591E
Measuring receiver	0.2 to 1300MHz, 0 to -125dBm, Freq Counter	HP-8902A
Oscilloscope	DC to 100MHz, 5mV to 1V/div, Rise Time capavility	TEK TDS360
Frequency Counter	+ / - 0.1ppm, 10Hz ~ 1GHz, 9digit	HP-53181A
Attenuator	10W, 20dB Att, DC to 1GHz	Tescom 99910

1. Frequency Accuracy

Frequency : 457.5750MHz

Stavility : Same as reference oscillator accuracy. Internal 1ppm 0 to 50degC

1.Test Setup (Connect LTK-1300HN RF Line without case)



Carrier frequency accuracy test

2. HP-8902A : auto tuning, frequency display

3. LTK-1300HN TRANSMITTER

1) Push button

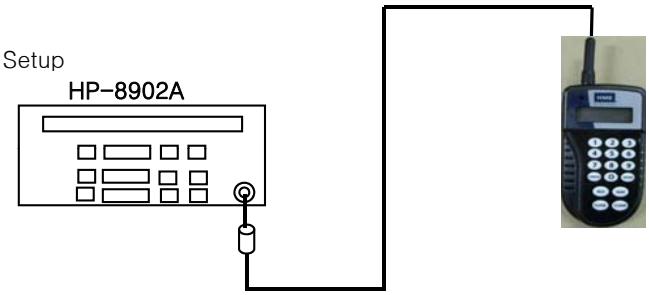
2) check frequency accuracy

2. RF Output Level Accuracy

RF level : 19.29dBm below

Accuracy : +/-1dB

1.Test Setup



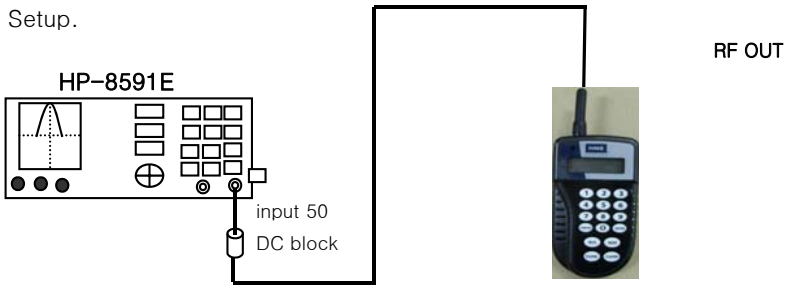
(Connect LTK-1300HN RF Line without case)

3. LTK-1300HN TRANSMITTER
   1) Connect DC block
   2) Push button and check RF Level

3. Harmonic Spurious

Harmonic Level at 2xFOUT : <-40dBc

1. Test Setup.



Harmonice test

(Connect LTK-1300HN RF Line without case)

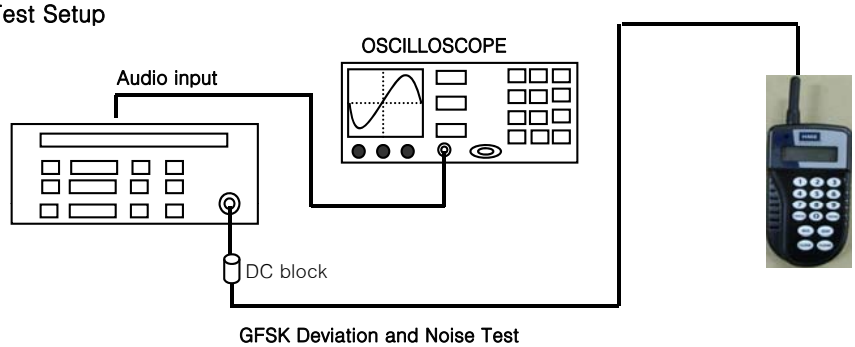
2. HP 8591E : Span = 500KHz, RBW = 10KHz, VBW = 30KHz.
3. LTK-1300HN TRANSMITTER:
   1) Connect DC block
   3) Push button and check harmonic

LTK-1300HN TRANSMITTER Harmonic Spurious

Fout(MHz)	Spurious(MHz)	Level(dBm)	Fout-2*Fout	Limit	Remark
457.575Mhz	915.15Mhz			-40dbc	

4. Modulation
   4.1. FM(RECT) (Internal GFSK Test Patterns)

1.Test Setup



GFSK Deviation and Noise Test

(Connect LTK-1300HN RF Line without case)

2.Equipment
   HP-8902A : FM
   TDS360 : 250us/div, 500mV/div Average : 16

3. LTK-1300HN TRANSMITTER:
   1) Connect DC block
   2) Push button and check modulation