



VP2 Refresh FP Bluetooth certification

I IC RD

Title:

VP2 Refresh Flatpanel(FP) 7inch RF antenna specification

Project:	VP2 Refresh Flatpanel		
Maturity:	<u>draft</u> / ready/ reviewed	Version:	A01

Author		
Role	Name	Date and signature
I IC RD SP EE D2	Frank Born	17-Mar-2016

Purpose:
This document describes the VP2 Refresh FP radio Bluetooth RF antenna specification

History of Content Changes				
Version	Status	Date dd-Mmm-YYYY	Document Owner, Department	Changes (e.g. CR-number)
A01	released	18-Mar-2016	F. Born I IC RD SP EE D2	First version

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Introduction

This document describes the PCB RF antenna of the VP2 Refresh FP 312 radio placed at the 7inch front PCB.

System description

The following picture shows the placement of the PCB RF antenna:

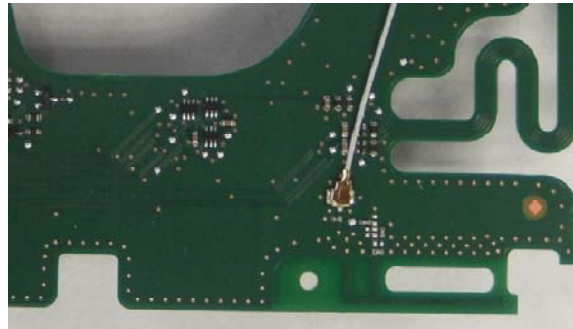


Figure1: VP2 Refresh FP 7inch front unit with PCB RF antenna

VSWR

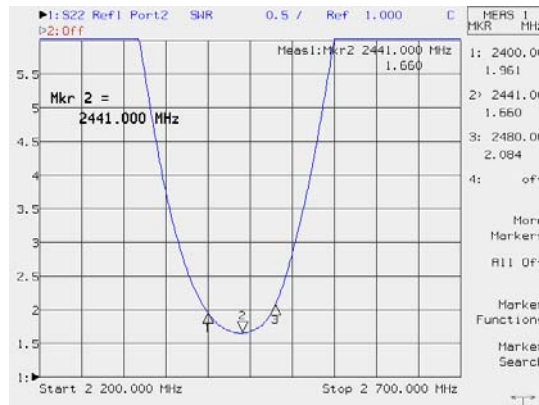


Figure2: VSWR <2.5 at BT frequency band

Antenna gain

Frequency description	2400MHz		2440MHz		2480MHz	
	G_tot/dBi (average)	G_max/dBi	G_tot/dBi (average)	G_max/dBi	G_tot/dBi (average)	G_max/dBi
X-Z axis	-4,4	1,4	-3,0	2,8	-3,7	2,2
Y-Z axis	-3,7		-2,8		-4,0	

Table1: VP2 Refresh FP measured PCB antenna gain

Antenna measurement



Figure3: measurement directions

—	Gain_total [dBi] (phi=0°) f=2480MHz, Avg -3.70, Max 2.17, Min -14.53
—	Gain_total [dBi] (phi=0°) f=2440MHz, Avg -2.99, Max 2.82, Min -13.02
—	Gain_total [dBi] (phi=0°) f=2400MHz, Avg -4.43, Max 1.35, Min -14.01

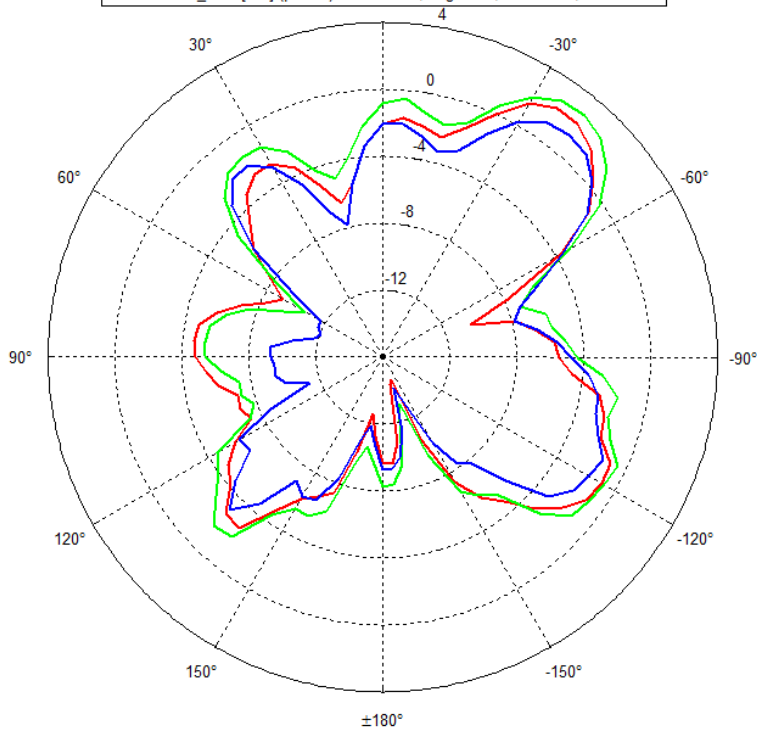


Figure4: measured X-Z plane, Z arrow =0°

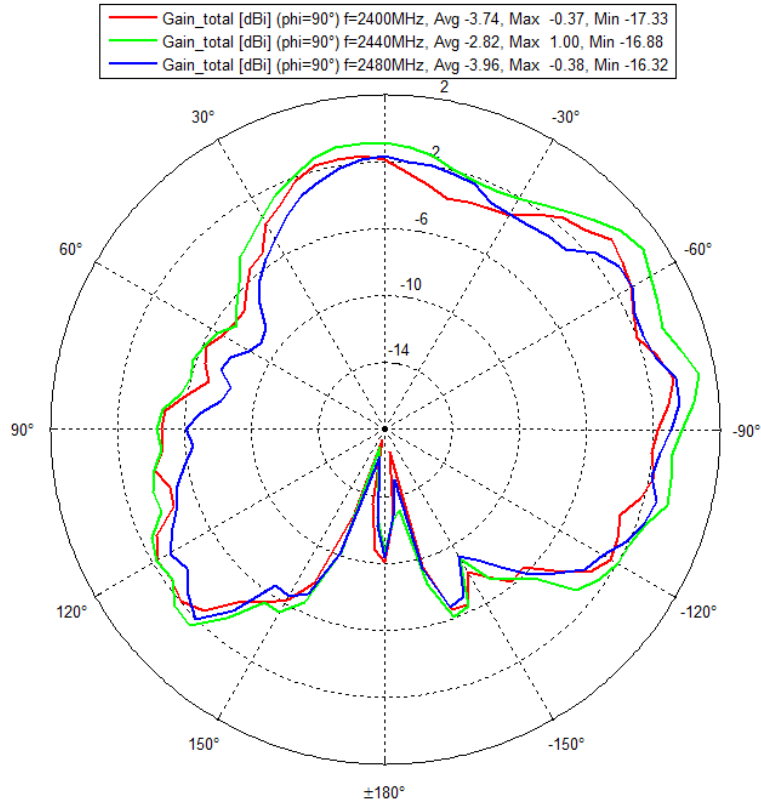


Figure5: measured Y-Z plane, Z arrow =0°

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