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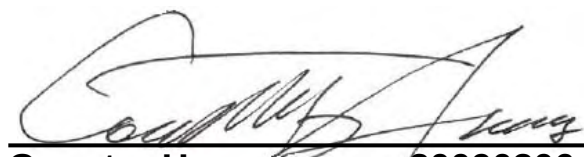
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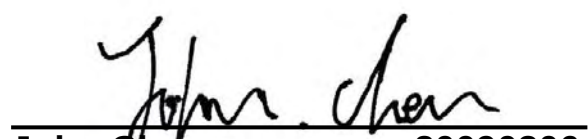
MPE Report



Test Report No.	: 0903FS11
Applicant	: XAC Automation Corporation
Manufacturer	: XAC Automation Corporation
Model Name	: Portable Terminal
Trade Mark	: FDC
Model Number	: FD-400(MC8775V)
FCC ID	: MQT-FD400
Dates of Test	: Oct. 14, 2008(Original) Mar. 03, 2009(Class II Change)
Test Specification	: 47 CFR § 2.1091 47 CFR §1.1310
Application	: Class II permissive change
Location of Test Lab.	: Chang-an Lab.

1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
3. The measurement report has to be written approval of A Test Lab Techno Corp. It may only be reproduced or published in full.


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1. Description of Equipment Under Test (EUT)

Applicant :

XAC Automation Corporation

4F., NO.30, INDUSTRY E. RD. IX, SCIENCE-BASED INDUSTRIAL PARK, HSIN-CHU,Taiwan, R.O.C.

Manufacturer : XAC Automation Corporation
Manufacturer Address : 4F., NO.30, INDUSTRY E. RD. IX, SCIENCE-BASED INDUSTRIAL PARK, HSIN-CHU,Taiwan, R.O.C
Product Name : Portable Terminal
Trade Mark : FDC
Model Name : FD-400(MC8775V)
Frequency Range :
824 - 849 MHz (GPRS/EGPRS 850)
1850 - 1910 MHz (GPRS/EGPRS 1900)
826 - 847 MHz (WCDMA/HSDPA Band V)
1852 - 1908 MHz (WCDMA/HSDPA Band II)
Transmit Power (mean EIRP) :
30.96 dBm GPRS 850
26.25 dBm EGPRS 850
27.60 dBm GPRS 1900
25.00 dBm EGPRS 1900
26.25 dBm WCDMA Band V
26.82 dBm HSDPA Band V
26.41 dBm WCDMA Band II
26.91 dBm HSDPA Band II
Hardware Version : 09020302
Software Version : C01
Modulation Technique : GMSK / QPSK
Antenna Specification : 1.0 dBi
Antenna Designation : Internal Antenna
Temperature Range : -30 ~ +70°C

The above equipment was tested by Compliance Certification Services Inc. For compliance with the requirements set forth in 47 CFR § 2.1091 & 47 CFR § 1.1310. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties



1.1 Class II permissive change description

The model (FDC_FD-400(MC8775V)) is the variant product of FDC_FD-400; FDC_FD-400 FCC ID is MQT-FD400. FDC_FD-400(MC8775V) is changed from FDC_FD-400; the difference from FDC_FD-400 is the model number / GSM&WCDMA RF Module / Software / Hardware.

Change Item	Original	Class II Change
Model number	FDC_FD-400	FDC_FD-400(MC8775V)
GSM&WCDMA RF Module	MC8775	MC8775V
Software	1109	09020302
Hardware	B06	C01



2. Human Exposure Assessment

Due to the design and installation of this product, it is not possible to conduct SAR evaluation. This is because client either manufactures or supplies the antenna(s) that will be used in the installation of this product. Therefore, this product will be evaluated as a mobile device per 47 CFR §1.1310 titled "Radiofrequency radiation exposure limits", generally referred to as MPE limits.

In 47 CFR § 2.1091, paragraph (b) defines a mobile device as "a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 cm is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. " This product is intended to be installed into a vehicle such that the unit is physically secured at one location. In the installation guide supplied with the product,

Client has made the following statement: "IMPORTANT: To meet the FCC's RF Exposure Guidelines, the antenna should be installed so there is at least 20 cm of separation between the body of the user and nearby persons and the antenna". Based on the installation of the transceiver and the antenna, the transmitters radiating structure is more than 20 cm from the user. Thus, this product is a "mobile device" as defined in section § 2.1091 paragraph (b).

Exposure evaluation

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

Where

S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna.



2.1 Test Result

EUT parameter	
Max output power in Watt (TP)	GPRS 850 : 1.299 W EGPRS 850 : 0.370 W GPRS 1900 : 1.302 W EGPRS 1900 : 0.572 W WCDMA Band V : 0.312 W WCDMA Band II : 0.401 W
Antenna gain (G)	1.0 dBi

2.1.1 Test Result(Original)

GPRS 850

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
824.2	0.549	20	30.95	1	1.567	0.312	20
836.6	0.558	20	30.96	1	1.570	0.313	20
848.8	0.566	20	30.90	1	1.549	0.308	20

EGPRS 850

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
824.2	0.549	20	26.25	1	0.531	0.106	20
836.6	0.558	20	26.21	1	0.526	0.105	20
848.8	0.566	20	26.09	1	0.512	0.102	20

GPRS 1900

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
1850.2	1.000	20	27.60	1	0.724	0.144	20
1880.0	1.000	20	27.51	1	0.710	0.141	20
1909.8	1.000	20	27.45	1	0.700	0.139	20



EGPRS 1900

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W)	Power Density [S]	Min. distance (cm)
1850.2	1.000	20	27.46	1	0.701	0.140	20
1880.0	1.000	20	27.51	1	0.710	0.141	20
1909.8	1.000	20	24.90	1	0.389	0.077	20

WCDMA Band V

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
826.4	0.551	20	26.00	1	0.501	0.100	20
836.4	0.558	20	26.25	1	0.531	0.106	20
846.4	0.564	20	26.02	1	0.504	0.100	20

HSDPA Band V

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
826.4	0.551	20	26.57	1	0.571	0.114	20
836.4	0.558	20	26.82	1	0.605	0.120	20
846.4	0.564	20	26.60	1	0.575	0.115	20

WCDMA Band II

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W)	Power Density [S]	Min. distance (cm)
1852.4	1.000	20	25.60	1	0.457	0.091	20
1880.0	1.000	20	26.41	1	0.551	0.110	20
1907.6	1.000	20	25.55	1	0.452	0.090	20

HSDPA Band II

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W)	Power Density [S]	Min. distance (cm)
1852.4	1.000	20	26.13	1	0.516	0.103	20
1880.0	1.000	20	26.91	1	0.618	0.123	20
1907.6	1.000	20	26.60	1	0.575	0.115	20



2.1.2 Test Result(Class II Change)

GPRS850

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
824.2	0.549	20	30.75	1	1.496	0.298	20
836.4	0.558	20	30.66	1	1.466	0.292	20
848.8	0.566	20	30.70	1	1.479	0.294	20

EDGE850

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
824.2	0.549	20	26.05	1	0.507	0.101	20
836.4	0.558	20	25.91	1	0.491	0.098	20
848.8	0.566	20	25.99	1	0.500	0.100	20

GPRS1900

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
1850.2	1.000	20	27.50	1	0.708	0.141	20
1880.0	1.000	20	27.31	1	0.678	0.135	20
1909.8	1.000	20	27.35	1	0.684	0.136	20

EDGE1900

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
1850.2	1.000	20	24.80	1	0.380	0.076	20
1880.0	1.000	20	24.60	1	0.363	0.072	20
1909.8	1.000	20	24.90	1	0.389	0.077	20



WCDMA Band V

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W)	Power Density [S]	Min. distance (cm)
826.4	0.551	20	25.85	1	0.484	0.096	20
836.4	0.558	20	26.07	1	0.509	0.101	20
846.4	0.564	20	25.87	1	0.486	0.097	20

HSDPA Band V

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W)	Power Density [S]	Min. distance (cm)
826.4	0.551	20	26.44	1	0.555	0.110	20
836.4	0.558	20	26.70	1	0.589	0.117	20
846.4	0.564	20	26.45	1	0.556	0.111	20

WCDMA Band II

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
1852.4	1.000	20	25.49	1	0.446	0.089	20
1880.0	1.000	20	26.31	1	0.538	0.107	20
1907.6	1.000	20	25.45	1	0.442	0.088	20

HSDPA Band II

Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	Power+Ant Gain (W) [TP]	Power Density [S]	Min. distance (cm)
1852.4	1.000	20	25.97	1	0.498	0.099	20
1880.0	1.000	20	26.73	1	0.593	0.118	20
1907.6	1.000	20	26.45	1	0.556	0.111	20