GLENAYRE ELECTRONICS, INC. TEST REPORT

FOR THE
WIRELESS MESSAGING MODULE, @CTIVELINK
(TRANSMITTER PORTION ONLY)

FCC PARTS 2 AND 24
COMPLIANCE

DATE OF ISSUE: JUNE 13, 2000

PREPARED FOR:

Glenayre Electronics, Inc.
2101 Tasman Drive
Santa Clara, CA 95054

P.O. No: L7683
W.O. No: 74365

Report No: FC00-052

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Date of test: May 8-17, June 5 & 6, 2000

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Dennis Ward

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Dennis Ward
Director of Laboratories
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CERTIFICATION TEST REPORT

ADMINISTRATIVE INFORMATION

DATE OF TEST:	Date of test: May 8, 2000
PURPOSE OF TEST:	To demonstrate the compliance of the Wireless Messaging Module, @ctiveLink with the requirements for devices under FCC Parts 2 and 24.
MANUFACTURER:	Glenayre Electronics, Inc.
REPRESENTATIVE:	Louie Sanguinetti
TEST LOCATION:	CKC Laboratories, Inc. 1653 Los Viboras Road Hollister, CA 95023
TEST PERSONNEL:	Art Rice
TEST METHOD:	FCC Part 2 and Part 24
EQUIPMENT UNDER TEST:	**Wireless Messaging Module** Manuf: Glenayre Electronics, Inc. Model: @ctiveLink Serial: C8 FCC ID: K3N7000 (pending)

SUMMARY OF RESULTS

The Wireless Messaging Module, @ctiveLink, was tested in accordance with FCC Part 2 and Part 24 for compliance with the transmitter characteristic requirements of the FCC Rules.

As received, the above equipment was found to be fully compliant with the limits of FCC Parts 2 and 24.

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The Wireless Messaging Module, @ctiveLink for the Handspring Visor PDA.

MEASUREMENT UNCERTAINTY

Associated with data in this report is a ±4dB measurement uncertainty.

PERIPHERAL DEVICES

The EUT was tested with the following peripheral devices:

Personal Data Assistant
Manuf: Handspring
Model: Visor
Serial: WAI 0863 (asset #)
FCC ID: DoC

Laptop PC
Manuf: Toshiba
Model: PA1205U X
Serial: 12424214
FCC ID: CJ6UK454

AC adapter for PC
Manuf: Toshiba
Model: PA2431U
Serial: 9505
FCC ID: none

Docking station
Manuf: Handspring
Model: Serial Cradle
Serial: 3003E
FCC ID: DoC

2.1033(c)(4) – Type(s) of Emissions

10K0F1D

2.1033(c)(5) – Frequency Range

901 – 902 MHz

2.1033(c)(6) –Range of Operating Power

The operating RF output power (ERP) is 2.80 watts. The output power is fixed. There is no means provided for variation of the operating power.

2.1033(c)(7) – Maximum Power Rating

The maximum power rating as defined in Part 24.132(a) is 7 watts E.R.P. The Wireless Messaging Module, @ctiveLink has a maximum power rating of 2.80 watts.

2.1033(c)(8) - DC Voltages

The transmitter in the @ctiveLink is powered by a 3.6V NiCad battery internal to the unit. The NiCad battery supplies a DC voltage of 3.6V and a current of 600mA to the final RF power amplifier stage.

2.1033(c)(9) – Tune-Up Procedure

There is no tune-up procedure for the output power as it is fixed to the maximum output power supplied by the final RF power amplifier stage. There is no means provided for variation of the operating power.

2.1033(c)(10) – Frequency Stabilization, Modulation, & Spurious Radiation

This section has been provided to the FCC per a separate file due to confidentiality reasons.

2.1033(c)(13) – Description of Modulation

This section has been provided to the FCC per a separate file due to confidentiality reasons.

2.1033(c)(14)/2.1046/24.132- RF Power Output

Test Location:	CKC Laboratories, Inc. • 1653 Los Viboras Rd., Site A • Hollister, Ca 95023 • (831) 637-0485		
Customer:	**Glenayre Electronics, Inc.**		
Specification:	**FCC 24.132 TX Limit**		
Work Order #:	**74280**	Date:	5/8/2000
Test Type:	**Maximized Emissions**	Time:	13:52:23
Equipment:	**2-way pager**	Sequence#:	1
Manufacturer:	Glenayre Electronics	Tested By:	Art Rice
Model:	@ctiveLink		
S/N:	C_8		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
HP 85650A QP Adaptor	2430A00541	04/09/2000	04/09/2001	0
HP 85662A Display	2112A02174	04/09/2000	04/09/2001	0
HP 85680A S. A.	2049A01408	04/09/2000	04/09/2001	0
Cable, 3m	Cbl3mha00	01/18/2000	01/18/2001	0
Log Periodic, A.H. SAS200/510	318	04/23/1999	05/19/2000	0

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
2-way pager*	Glenayre Electronics	@ctiveLink	C_8

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Tested in accordance with FCC Part 2 and Part 24 test procedures. The EUT is a two-way pager that operates in the 901-902 MHz range. Testing the pager in the transmit mode in three positions to determine worst case. The front of the unit is defined as the side that has the button. **Position 1** is with bottom edge placed on table top. **Position 2** is with right end placed on table top. **Position 3** is with back placed on table top. Note: Spec limit of 133.7 dBuV is equivalent to 7 watts ERP. The carrier frequency is 901.20625 MHz with a channel bandwidth of 10 kHz. The main digital clock is 9.6 MHz. The EUT is in "test mode 39", which causes it to transmit with no modulation of the carrier.

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	dB	dB	Cable dB	Log dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	901.298M	102.8			+4.4	+22.5	+0.0	129.7	133.7	-4.0	Horiz
									The unit is placed in position 2.		
2	901.292M	98.1			+4.4	+22.5	+0.0	125.0	133.7	-8.7	Vert
									The unit is placed in position 1.		

3	901.293M	97.9	+4.4	+22.5	+0.0	124.8	133.7	-8.9	Horiz
							The unit is placed in position 3.		
4	901.295M	90.4	+4.4	+22.5	+0.0	117.3	133.7	-16.4	Vert
							The unit is placed in position 2.		
5	901.290M	89.6	+4.4	+22.5	+0.0	116.5	133.7	-17.2	Horiz
							The unit is placed in position 1.		
6	901.293M	88.4	+4.4	+22.5	+0.0	115.3	133.7	-18.4	Vert
							The unit is placed in position 3.		

Test Location:	CKC Laboratories, Inc. • 1653 Los Viboras Rd., Site A • Hollister, Ca 95023 • (831) 637-0485		
Customer:	**Glenayre Electronics, Inc.**		
Specification:	**FCC 24.132 TX Limit**		
Work Order #:	**74365**	Date:	5/12/2000
Test Type:	**Maximized Emissions**	Time:	15:59:13
Equipment:	**2-way pager**	Sequence#:	19
Manufacturer:	Glenayre Electronics	Tested By:	Art Rice
Model:	@ctiveLink	S/N:	C_8

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
HP 85650A QP Adaptor	2430A00541	04/09/2000	04/09/2001	0
HP 85662A Display	2112A02174	04/09/2000	04/09/2001	0
HP 85680A S. A.	2049A01408	04/09/2000	04/09/2001	0
Cable, 3m	Cbl3mha00	01/18/2000	01/18/2001	0
Log Periodic, A.H. SAS200/510	464	10/12/1999	10/12/2000	2

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
2-way pager*	Glenayre Electronics	@ctiveLink	C_8

Support Devices:

Function	Manufacturer	Model #	S/N
Personal Data Assistant	Handspring	Visor	WAI 0863 (asset #)

Test Conditions / Notes:

Tested in accordance with FCC Part 2 and Part 24 test procedures. The EUT is a two-way pager that operates in the 901-902 MHz range. Testing the pager in the transmit mode in three positions to determine worst case. The front of the unit is defined as the side that has the button. The bottom edge has the interface connector. **Position 1** is with bottom edge pointed down toward the table top. **Position 2** is with right end pointed down toward the table top. **Position 3** is with back placed on table top. Note: Spec limit of 133.7 dBuV is equivalent to 7 watts ERP. The carrier frequency is 901.20625 MHz with a channel bandwidth of 10 kHz. The main digital clock is 9.6 MHz. The EUT is in "test mode 39", which causes it to transmit with no modulation of the carrier. The Pager is plugged into the expansion port of the PDA. The address bus and data bus which interface with the Personal Data Assistant (PDA) are continuously active. The PDA sleep mode is disabled to provide continuous activity. The PDA is battery operated with no charger jack provided.

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	Cable dB	Log dB	dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	901.299M	98.8	+4.4	+22.0			+0.0	125.2	133.7	-8.5	Horiz
									The EUT is placed in position 2.		
2	901.294M	97.2	+4.4	+22.0			+0.0	123.6	133.7	-10.1	Horiz
									The EUT is placed in position 3.		

3	901.299M	94.5	+4.4	+22.0	+0.0	120.9	133.7	-12.8	Vert The EUT is placed in position 1.
4	901.299M	91.7	+4.4	+22.0	+0.0	118.1	133.7	-15.6	Horiz The EUT is placed in position 1.
5	901.294M	91.0	+4.4	+22.0	+0.0	117.4	133.7	-16.3	Vert
6	901.299M	86.0	+4.4	+22.0	+0.0	112.4	133.7	-21.3	Vert The EUT is placed in position 2.

Test Location:	CKC Laboratories, Inc. • 1653 Los Viboras Rd., Site A • Hollister, Ca 95023 • (831) 637-0485		
Customer:	**Glenayre Electronics, Inc.**		
Specification:	**FCC 24.132 TX Limit**		
Work Order #:	**74495**	Date:	06/05/2000
Test Type:	**Maximized Emissions**	Time:	12:30:16
Equipment:	**2-way pager**	Sequence#:	37
Manufacturer:	Glenayre Electronics	Tested By:	Art Rice
Model:	@ctiveLink	S/N:	C_8

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
HP 85650A QP Adaptor	2430A00541	04/09/2000	04/09/2001	0
HP 85662A Display	2112A02174	04/09/2000	04/09/2001	0
HP 85680A S. A.	2049A01408	04/09/2000	04/09/2001	0
Log Periodic, A.H. SAS200/510	464	10/12/1999	10/12/2000	2
Cable, 3m	Cbl3mha00	01/18/2000	01/18/2001	0

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
2-way pager*	Glenayre Electronics	@ctiveLink	C_8

Support Devices:

Function	Manufacturer	Model #	S/N
Personal Data Assistant	Handspring	Visor	WAI 0863 (asset #)
Laptop PC	Toshiba	PA1205U X	12424214
AC adapter for PC	Toshiba	PA2431U	9505
Docking station	Handspring	Serial Cradle	3003E

Test Conditions / Notes:

Tested in accordance with FCC Part 2 and Part 24 test procedures. The EUT is a two-way pager that operates in the 901-902 MHz range. Testing the pager while installed in the expansion port of the Personal Data Assistant (PDA) which is mounted on it's docking station. The address bus and data bus which interface the pager with the PDA are continuously active. The PDA sleep mode is disabled to provide continuous activity. The docking station is connected to the Laptop PC serial port through a shielded DB9 cable that is permanently attached to the docking station. "Hot Sync" software is transferring files from the PC to the docking station. The laptop PC is placed at the back edge of the test table. The docking station is placed to the left of the PC. The PC AC adapter is placed on the floor of the turntable. Note: Spec limit of 133.7 dBuV is equivalent to 7 watts ERP. The carrier frequency is 901.20625 MHz with a channel bandwidth of 10 kHz. The main digital clock is 9.6 MHz. The EUT is in "test mode 39", which causes it to transmit with no modulation of the carrier.

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	cable dB	Log dB	dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	901.292M	91.2	+4.4	+22.0			+0.0	117.6	133.7	-16.1	Vert
	With hot sync data transfer.										
2	901.298M	89.1	+4.4	+22.0			+0.0	115.5	133.7	-18.2	Horiz
	Without hot sync data transfer.										
3	901.292M	88.9	+4.4	+22.0			+0.0	115.3	133.7	-18.4	Horiz
	With hot sync data transfer.										

Video Bandwidth and Resolution Bandwidth Settings:

Frequency Range	Signal Analyzer VBW & RBW Setting
901– 902 MHz	1 MHz

Photo Of Test Setup Used for RF Power Measurement:

Front View of Transmitter Only

Photo Of Test Setup Used for RF Power Measurement:

Back View of Transmitter Only

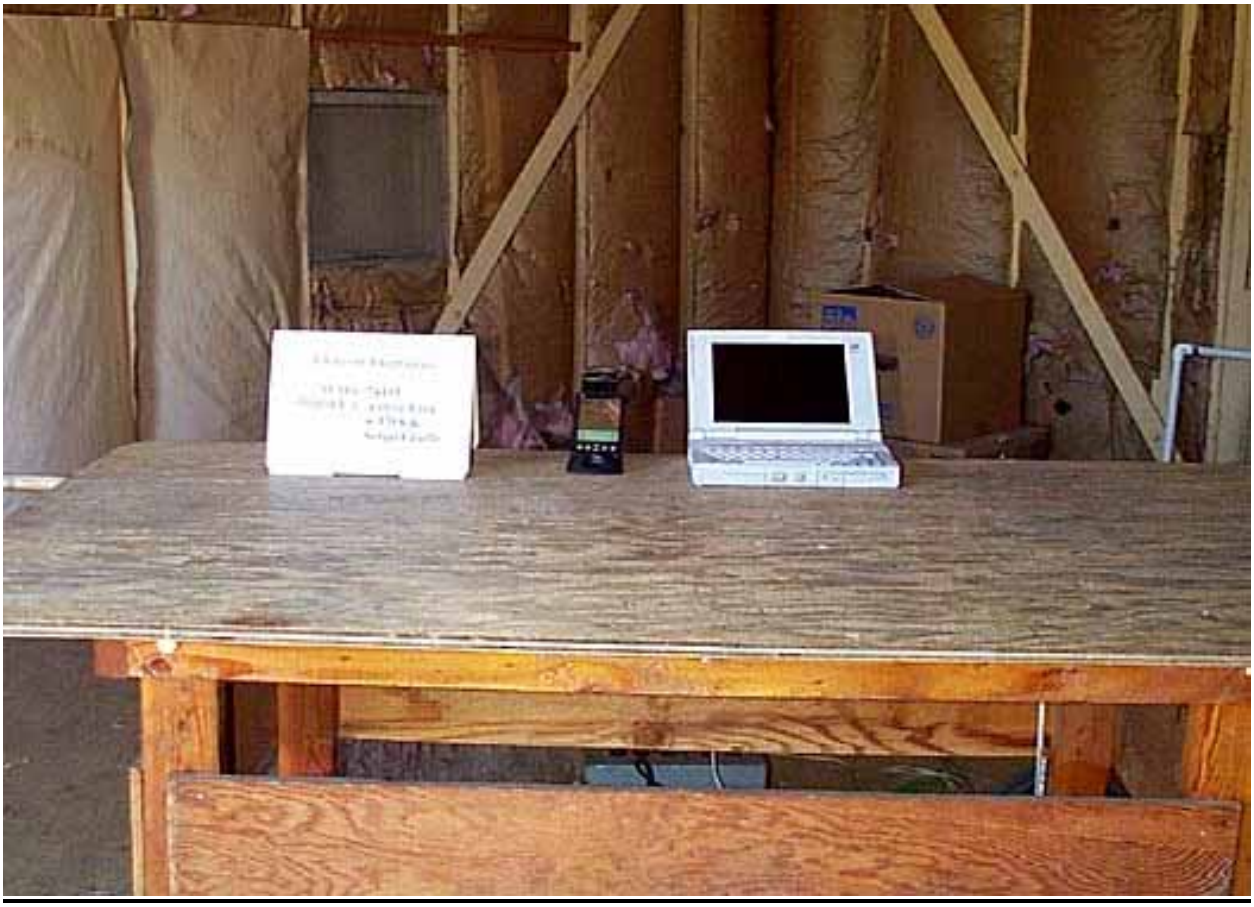
Photo Of Test Setup Used for RF Power Measurement:

Front View of Transmitter with PDA

Photo Of Test Setup Used for RF Power Measurement:

Back View of Transmitter with PDA

Photo Of Test Setup Used for RF Power Measurement:



Front View of Transmitter with PDA and Docking Station

Photo Of Test Setup Used for RF Power Measurement:

Back View of Transmitter with PDA and Docking Station

2.1033(c)(14)/2.1047(a)/24.131 - MODULATION CHARACTERISTICS – Audio Frequency Response

Not applicable to this unit.

2.1033(c)(14)/2.1047(b)/24.131 - MODULATION CHARACTERISTICS – Modulation Limiting Response

Customer supplied data to be uploaded to the FCC in separate files.

2.1033(c)(14)/2.1049(i)/24.131- OCCUPIED BANDWIDTH

Customer supplied data to be uploaded to the FCC in separate files.

2.1033(c)(14)/2.1051/N/A - SPURIOUS EMISSIONS AT ANTENNA TERMINAL

Measurements were not taken at the antenna terminal because the 2-way pager has a permanently attached integral antenna and there was no means of modifying the antenna for direct measurements. A similar device was previous tested in the same manner and granted on August 20, 1998 (K3N5000).

2.1033(c)(14)/2.1053/24.133 - FIELD STRENGTH OF SPURIOUS RADIATION

Test Equipment Used:

Function	S/N	Calibration Date	Cal Due Date	Asset #
HP 85650A QP Adaptor	2430A00541	04/09/2000	04/09/2001	0
HP 85662A Display	2112A02174	04/09/2000	04/09/2001	0
HP 85680A S. A.	2049A01408	04/09/2000	04/09/2001	0
Bicon, AH Sys. SAS200/540	273	10/29/1999	10/29/2000	0
Cable, 3m	Cbl3mha00	01/18/2000	01/18/2001	0
Log Periodic, A.H. SAS200/510	464	10/12/1999	10/12/2000	2
Horn Ant, ARA DRG-118A	1064	02/08/2000	02/08/2001	2061
Cable,100 ft Andrews FSJ1P-50A-4A	Cable #7	09/23/1999	09/23/2000	0
Cable, 25 ft Andrews FSJ1P-50A-4A	Cable #12	09/23/1999	09/23/2000	0
Preamp, HP83017A	3123A00281	07/27/1999	07/27/2000	786
HP 8596E S.A.	3346A00225	05/10/2000	05/10/2001	783

Test Data for Transmitter Only

FCC CFR 47 Part 2.1053 & 24.133											
Glenayre model: @ctiveLink (standalone configuration)											
CFR 47 Part 2.1053 & 24.133 Measurements required: Field strength of spurious radiation.											
Operating Channel - 901.20625 MHz											
Polarity	**Freq (MHz)**	**Reading in dBuV**	**PreAmp Factor**	**Cable Factor**	**Horn Antenna**	**Corrected E (dBuV/M)**	**V/M**	**ERP (Watts)**	**Spec Limit Watts**	**Pass or Fail**	
Horizontal	1802.41	75.00	-39.40	9.7	25.6	70.90	0.003507519	0.000003691	0.000050000	Pass	
Vertical	8110.89	38.80	-37.00	23.3	37.1	62.20	0.001288250	0.000000498	0.000050000	Pass	
Horizontal	3604.82	53.50	-38.60	14.9	32	61.80	0.001230269	0.000000454	0.000050000	Pass	
Horizontal	9012.05	33.30	-35.00	26	37.3	61.60	0.001202264	0.000000434	0.000050000	Pass	
Horizontal	7209.65	36.90	-35.30	21.8	37.6	61.00	0.001122018	0.000000378	0.000050000	Pass	
Vertical	6308.48	34.00	-36.00	21	35.6	54.60	0.000537032	0.000000087	0.000050000	Pass	
Notes: Frequency range investigated was from 30 MHz to 9.012 GHz. All spurious and harmonic emissions were investigated. All emissions detected that were less than 20dB below the permissible value were reported. CKC data sheet file name is fc24se04a-txspurs1-9ghz.DAT (position 2, standalone)											

CALCULATIONS

Note: The data taken is the radiated power of each spurious emission with reference to the unmodulated carrier power output of the transmitter.

The 43+10log(P) dB "out of band" attenuation equates to a 50 uW limit for any P. The following equations establish this amplitude limit for spurious emissions.

Spurious Emissions Limit (dBW) = 10logP - (43+10logP) = -43 dBW.

Spurious Emissions Limit (W) = 10^(-43/10) = 50 * 10^-6 W.

ERP Calculations							**Conversion of dBuV/m to V/m**			
ERP = $(Ed)^2/30$							[invlog(Reading in dBuV/m/20)]*.000001 = V/m			
E = V/m										
d= distance										

CFR 47 Part 24 calculations.

Transmitter Power Limitations Calculations for standalone (transmitter only) configuration:

Maximum transmit level measured was 129.7 dBµV/m.
Convert to linear V/m:
inv log(129.7/20) *.000001 = 3.055 V/m
Calculate ERP:
ERP = (Ed)^2 /30 [distance d=3 meters]
ERP = (3.055*3)^2/30
ERP = 83.993/30
ERP = 2.80 watts (7 watts is allowable in Part 24)

Spec Limit Calculations:

ERP = (Ed)^2/30 (ERP =7 watts, and d = 3 meters)
(Ed)^2 = ERP*30
Ed = (ERP*30)^½
E = (ERP*30)^½/d
E = (7*30)^½/3
E = (210)^½/3
E = 4.83 V/m
E = 4,830,000 µV/m
20 log(4,830,000 µV/m) = 133.7 dBµV/m (specification limit used on CKC data sheets to calculate margin)

Test Data for Transmitter with PDA

FCC CFR 47 Part 2.1053 & 24.133

Glenayre model: @ctiveLink (configuration with PDA)

CFR 47 Part 2.1053 & 24.133 Measurements required: Field strength of spurious radiation.

Operating Channel - 901.20625 MHz

Polarity	Freq (MHz)	Reading in dBuV	PreAmp Factor	Cable Factor	Horn Antenna	Corrected E (dBuV/M)	V/M	ERP (Watts)	Spec Limit Watts	Pass or Fail
Horizontal	1802.41	72.10	-39.40	9.7	25.6	68.00	0.002511886	0.000001893	0.000050000	Pass
Horizontal	3604.83	56.50	-38.60	14.9	32	64.80	0.001737801	0.000000906	0.000050000	Pass
Horizontal	2703.62	59.20	-38.50	12.8	30.8	64.30	0.001640590	0.000000807	0.000050000	Pass
Horizontal	4506.03	53.80	-37.80	17.1	31	64.10	0.001603245	0.000000771	0.000050000	Pass
Horizontal	8110.92	39.50	-37.00	23.3	37.1	62.90	0.001396368	0.000000585	0.000050000	Pass
Vertical	9012.07	33.60	-35.00	26	37.3	61.90	0.001244515	0.000000465	0.000050000	Pass

Notes: Frequency range investigated was from 30 MHz to 9.012 GHz. All spurious and harmonic emissions were investigated. All emissions detected that were less than 20dB below the permissible value were reported. CKC data sheet file name is fc24se20a-txspurs1-9ghz.DAT (position 2, with PDA)

CALCULATIONS

Note: The data taken is the radiated power of each spurious emission with reference to the unmodulated carrier power output of the transmitter.

The 43+10log(P) dB "out of band" attenuation equates to a 50 uW limit for any P. The following equations establish this amplitude limit for spurious emissions.

Spurious Emissions Limit (dBW) = 10logP - (43+10logP) = -43 dBW.

Spurious Emissions Limit (W) = 10^(-43/10) = 50 * 10^-6 W.

ERP Calculations

ERP = $(Ed)^2/30$

E = V/m

d= distance

Conversion of dBuV/m to V/m

[invlog(Reading in dBuV/m/20)]*.000001 = V/m

CFR 47 Part 24 calculations.

Transmitter Power Limitations Calculations for configuration with PDA:

Maximum transmit level measured was 125.2 dBµV/m.
Convert to linear V/m:
inv log(125.2/20) *.000001 = 1.82 V/m
Calculate ERP:
ERP = (Ed)^2 /30 [distance d=3 meters]
ERP = (1.82*3)^2/30
ERP = 29.80/30
ERP = 0.993 watts (7 watts is allowable in Part 24)

Spec Limit Calculations:

ERP = (Ed)^2/30 (ERP =7 watts, and d = 3 meters)
(Ed)^2 = ERP*30
Ed = (ERP*30)^½
E = (ERP*30)^½/d
E = (7*30)^½/3
E = (210)^½/3
E = 4.83 V/m
E = 4,830,000 µV/m
20 log(4,830,000 µV/m) = 133.7 dBµV/m (specification limit used on CKC data sheets to calculate margin)

Test Data for Transmitter with PDA and Docking Station

FCC CFR 47 Part 2.1053 & 24.133

Glenayre model: @ctiveLink (configuration with PDA & Docking Station)

CFR 47 Part 2.1053 & 24.133 Measurements required: Field strength of spurious radiation.

Operating Channel - 901.20625 MHz

Polarity	Freq (MHz)	Reading in dBuV	PreAmp Factor	Cable Factor	Horn Antenna	Corrected E (dBuV/M)	V/M	ERP (Watts)	Spec Limit Watts	Pass or Fail
Horizontal	1802.39	74.70	-39.40	9.7	25.6	70.60	0.003388442	0.000003444	0.000050000	Pass
Horizontal	8110.93	38.50	-37.00	23.3	37.1	61.90	0.001244515	0.000000465	0.000050000	Pass
Vertical	7209.58	36.70	-35.30	21.8	37.6	60.80	0.001096478	0.000000361	0.000050000	Pass
Horizontal	3604.80	51.00	-38.60	14.9	32	59.30	0.000922571	0.000000255	0.000050000	Pass
Horizontal	2703.59	52.00	-38.50	12.8	30.8	57.10	0.000716143	0.000000154	0.000050000	Pass
Vertical	6308.37	33.80	-36.00	21	35.6	54.40	0.000524807	0.000000083	0.000050000	Pass

Notes: Frequency range investigated was from 30 MHz to 9.012 GHz. All spurious and harmonic emissions were investigated. All emissions detected that were less than 20dB below the permissible value were reported. CKC data sheet file name is fc24se46c-txspurs1-9ghz.DAT (with PDA & Docking Station)

CALCULATIONS

Note: The data taken is the radiated power of each spurious emission with reference to the unmodulated carrier power output of the transmitter.

The 43+10log(P) dB "out of band" attenuation equates to a 50 uW limit for any P. The following equations establish this amplitude limit for spurious emissions.

Spurious Emissions Limit (dBW) = 10logP - (43+10logP) = -43 dBW.

Spurious Emissions Limit (W) = 10^(-43/10) = 50 * 10^-6 W.

ERP Calculations

ERP = $(Ed)^2/30$

E = V/m

d= distance

Conversion of dBuV/m to V/m

[invlog(Reading in dBuV/m/20)]*.000001 = V/m

CFR 47 Part 24 calculations.

Transmitter Power Limitations Calculations for configuration with PDA & Docking Station:

Maximum transmit level measured was 117.6 dBµV/m.
Convert to linear V/m:
inv log(117.6/20) *.000001 = .7586 V/m
Calculate ERP:
ERP = (Ed)^2 /30 [distance d=3 meters]
ERP = (.7586*3)^2/30
ERP = 5.178/30
ERP = 0.173 watts (7 watts is allowable in Part 24)

Spec Limit Calculations:

ERP = (Ed)^2/30 (ERP =7 watts, and d = 3 meters)
(Ed)^2 = ERP*30
Ed = (ERP*30)^½
E = (ERP*30)^½/d
E = (7*30)^½/3
E = (210)^½/3
E = 4.83 V/m
E = 4,830,000 µV/m
20 log(4,830,000 µV/m) = 133.7 dBµV/m (specification limit used on CKC data sheets to calculate margin)

Photograph Showing Spurious Emissions

Test setup same as RF Power Output. See photos on pages 12 - 17.

2.1033(c)(14)/2.1055/24.135/24.135 - Frequency Stability

Customer supplied data to be uploaded to the FCC in separate files.