

SAR DATA SUMMARY (Continued)

Mixture Type: 835MHz Brain

14.4 MEASUREMENT RESULTS (AMPS Left Head SAR – Tilt)								
FREQUENCY		Modulation	Begin / End POWER*			Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
836.49	0383	AMPS	26.62	26.47	Standard	Ear / 15° Tilt	Fixed	0.221
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
4. SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☒ Left Head ☐ Flat Phantom ☐ Right Head
5. SAR Configuration ☒ Head ☐ Body ☐ Hand
6. Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
- Tissue parameters and temperatures are listed on the SAR plots.
 - Liquid tissue depth is 15.1 cm. ± 0.1
 - Justification for reduced test configurations: Per FCC/OET Bulletin 65 Supplement C (July, 2001), if the SAR measured at the middle channel for each test configuration (left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).


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**Figure 14.4 Left Head SAR Test Setup
-- Ear / Tilt Position --**

PCTEST™ SAR REPORT		Class II Permissive Change Report 		Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJVX4700	Page 21 of 39

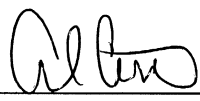
SAR DATA SUMMARY (Continued)

Mixture Type: 835MHz Brain

14.5 MEASUREMENT RESULTS (CDMA Right Head SAR – Touch)								
FREQUENCY		Modulation	Begin / End POWER*			Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
835.89	0363	CDMA	24.13	23.94	Standard	Cheek / Touch	Fixed	0.470
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
4. SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☐ Left Head ☐ Flat Phantom ☒ Right Head
5. SAR Configuration ☒ Head ☐ Body ☐ Hand
6. Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
- Tissue parameters and temperatures are listed on the SAR plots.
 - Liquid tissue depth is 15.1 cm. ± 0.1
 - Justification for reduced test configurations: Per FCC/OET Bulletin 65 Supplement C (July, 2001), if the SAR measured at the middle channel for each test configuration (left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).


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**Figure 14.5 Right Head SAR Test Setup
-- Cheek / Touch Position --**

PCTEST™ SAR REPORT		Class II Permissive Change Report 		Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJYX4700	Page 22 of 39

SAR DATA SUMMARY (Continued)

Mixture Type: 835MHz Brain

14.6 MEASUREMENT RESULTS (CDMA Right Head SAR - Tilt)								
FREQUENCY		Modulation	Begin / End POWER [‡]			Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
835.89	0363	CDMA	24.05	24.05	Standard	Ear / 15° Tilt	Fixed	0.148
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
4. SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☐ Left Head ☐ Flat Phantom ☒ Right Head
5. SAR Configuration ☒ Head ☐ Body ☐ Hand
6. Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
- Tissue parameters and temperatures are listed on the SAR plots.
 - Liquid tissue depth is 15.1 cm. ± 0.1
 - Justification for reduced test configurations: Per FCC/OET Bulletin 65 Supplement C (July, 2001), if the SAR measured at the middle channel for each test configuration (left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).

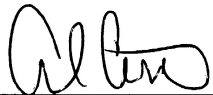

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Figure 14.6 Right Head SAR Test Setup
-- Ear / Tilt Position --

PCTEST™ SAR REPORT		Class II Permissive Change Report		Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJVX4700	Page 23 of 39

SAR DATA SUMMARY (Continued)

Mixture Type: 835MHz Brain

14.7 MEASUREMENT RESULTS (CDMA Left Head SAR – Touch)

FREQUENCY		Modulation	Begin / End POWER*			Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
835.89	0363	CDMA	24.06	24.12	Standard	Cheek / Touch	Fixed	0.479
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
- SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☒ Left Head ☐ Flat Phantom ☐ Right Head
- SAR Configuration ☒ Head ☐ Body ☐ Hand
- Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
- Tissue parameters and temperatures are listed on the SAR plots.
 - Liquid tissue depth is 15.1 cm. ± 0.1
 - Justification for reduced test configurations: Per FCC/OET Bulletin 65 Supplement C (July, 2001), if the SAR measured at the middle channel for each test configuration (left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).



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**Figure 14.7 Left Head SAR Test Setup
-- Cheek / Touch Position --**

PCTEST™ SAR REPORT	Class II Permissive Change Report			Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJYX4700	Page 24 of 39

SAR DATA SUMMARY (Continued)

Mixture Type: 835MHz Brain

14.8 MEASUREMENT RESULTS (CDMA Left Head SAR - Tilt)

FREQUENCY		Modulation	Begin / End POWER [†]			Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
835.89	0363	CDMA	24.11	24.05	Standard	Ear / 15° Tilt	Fixed	0.144
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
4. SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☒ Left Head ☐ Flat Phantom ☐ Right Head
5. SAR Configuration ☒ Head ☐ Body ☐ Hand
6. Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
- Tissue parameters and temperatures are listed on the SAR plots.
 - Liquid tissue depth is 15.1 cm. ± 0.1
 - Justification for reduced test configurations: Per FCC/OET Bulletin 65 Supplement C (July, 2001), if the SAR measured at the middle channel for each test configuration (left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).



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Figure 14.8 Left Head SAR Test Setup
-- Ear / Tilt Position --

PCTEST™ SAR REPORT		Class II Permissive Change Report 		Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJVX4700	Page 25 of 39

SAR DATA SUMMARY (Continued)

Mixture Type: 1900MHz Brain

14.9 MEASUREMENT RESULTS (PCS CDMA Right Head SAR – Touch)								
FREQUENCY		Modulation	Begin / End POWER [‡]			Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
1851.25	0025	PCS CDMA	24.09	23.91	Standard	Cheek / Touch	Fixed	0.403
1880.00	0600	PCS CDMA	24.07	23.98	Standard	Cheek / Touch	Fixed	0.354
1908.75	1175	PCS CDMA	24.12	24.01	Standard	Cheek / Touch	Fixed	0.173
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- [‡]Power Measured ☒ Conducted ☐ ERP ☐ EIRP
 4. SAR Measurement System ☒ DASY4 ☐ IDX
 Phantom Configuration ☐ Left Head ☐ Flat Phantom ☒ Right Head
 5. SAR Configuration ☒ Head ☐ Body ☐ Hand
 6. Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
 7. Tissue parameters and temperatures are listed on the SAR plots.
 8. Liquid tissue depth is 15.1 cm. ± 0.1


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Figure 14.9 Right Head SAR Test Setup
-- Cheek / Touch Position --

PCTEST™ SAR REPORT	 Class II Permissive Change Report 		Reviewed by: Quality Manager	
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJVX4700	Page 26 of 39

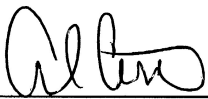
SAR DATA SUMMARY (Continued)

Mixture Type: 1900MHz Brain

14.10 MEASUREMENT RESULTS (PCS CDMA Right Head SAR – Tilt)								
FREQUENCY		Modulation	Begin / End POWER*			Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
1880.00	0600	PCS CDMA	24.08	23.95	Standard	Ear / 15° Tilt	Fixed	0.123
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
4. SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☐ Left Head ☐ Flat Phantom ☒ Right Head
5. SAR Configuration ☒ Head ☐ Body ☐ Hand
6. Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
- Tissue parameters and temperatures are listed on the SAR plots.
 - Liquid tissue depth is 15.1 cm. ± 0.1
 - Justification for reduced test configurations: Per FCC/OET Bulletin 65 Supplement C (July, 2001), if the SAR measured at the middle channel for each test configuration (left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).


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**Figure 14.10 Right Head SAR Test Setup
-- Ear / Tilt Position --**

PCTEST™ SAR REPORT		Class II Permissive Change Report 		Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJYX4700	Page 27 of 39

SAR DATA SUMMARY (Continued)

Mixture Type: 1900MHz Brain

14.11 MEASUREMENT RESULTS (PCS CDMA Left Head SAR – Touch)								
FREQUENCY		Modulation	Begin / End POWER*			Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
1851.25	0025	PCS CDMA	24.10	23.94	Standard	Cheek / Touch	Fixed	0.517
1880.00	0600	PCS CDMA	24.09	23.97	Standard	Cheek / Touch	Fixed	0.400
1908.75	1175	PCS CDMA	24.10	24.02	Standard	Cheek / Touch	Fixed	0.161
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
- SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☒ Left Head ☐ Flat Phantom ☐ Right Head
- SAR Configuration ☒ Head ☐ Body ☐ Hand
- Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
- Tissue parameters and temperatures are listed on the SAR plots.
 - Liquid tissue depth is 15.1 cm. ± 0.1

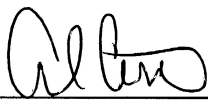

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Figure 14.11 Left Head SAR Test Setup
-- Cheek / Touch Position --

PCTEST™ SAR REPORT		Class II Permissive Change Report		Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJYX4700	Page 28 of 39

SAR DATA SUMMARY (Continued)

Mixture Type: 1900MHz Brain

14.12 MEASUREMENT RESULTS (PCS CDMA Left Head SAR – Tilt)								
FREQUENCY		Modulation	Begin / End POWER*			Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
1880.00	0600	PCS CDMA	24.13	24.01	Standard	Ear / 15° Tilt	Fixed	0.115
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
4. SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☒ Left Head ☐ Flat Phantom ☐ Right Head
5. SAR Configuration ☒ Head ☐ Body ☐ Hand
6. Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
- Tissue parameters and temperatures are listed on the SAR plots.
 - Liquid tissue depth is 15.1 cm. ± 0.1
 - Justification for reduced test configurations: Per FCC/OET Bulletin 65 Supplement C (July, 2001), if the SAR measured at the middle channel for each test configuration (left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).


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**Figure 14.12 Left Head SAR Test Setup
-- Ear / Tilt Position --**

PCTEST™ SAR REPORT		Class II Permissive Change Report 		Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJVX4700	Page 29 of 39

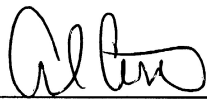
SAR DATA SUMMARY (Continued)

Mixture Type: 835MHz Brain

14.13 MEASUREMENT RESULTS (CDMA Face – 2.5cm Space Flip Close)								
FREQUENCY		Modulation	Begin / End POWER*			Separation Distance (cm)	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
835.89	363	CDMA	24.05	23.96	Standard	2.5	Fixed	0.142
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
4. SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☐ Left Head ☒ Flat Phantom ☐ Right Head
5. SAR Configuration ☒ Face ☐ Body ☐ Hand
6. Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
7. **Test Configuration ☐ With Belt-clip ☒ Without Belt-clip
- Tissue parameters and temperatures are listed on the SAR plots.
 - Both sides of the phone were tested and the worst-case side is reported.
 - Liquid tissue depth is 15.1 cm. ± 0.1



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Figure 14.13 Face SAR Test Setup
-- Push To Talk/ Flip Close Position --

PCTEST™ SAR REPORT	 Class II Permissive Change Report			Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJYX4700	Page 30 of 39

SAR DATA SUMMARY (Continued)

Mixture Type: 835MHz Brain

14.14 MEASUREMENT RESULTS (CDMA Face – 2.5cm Space Flip Open)								
FREQUENCY		Modulation	Begin / End POWER [‡]			Separation Distance (cm)	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
835.89	363	CDMA	24.03	24.05	Standard	2.5	Fixed	0.142
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
- SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☐ Left Head ☒ Flat Phantom ☐ Right Head
- SAR Configuration ☒ Face ☐ Body ☐ Hand
- Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
- Tissue parameters and temperatures are listed on the SAR plots.
 - Liquid tissue depth is 15.1 cm. ± 0.1



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Figure 14.14 Face SAR Test Setup
-- Push To Talk/ Flip Open Position --

PCTEST™ SAR REPORT	Class II Permissive Change Report		Reviewed by: Quality Manager	
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJVX4700	Page 31 of 39

SAR DATA SUMMARY (Continued)

Mixture Type: 1900MHz Brain

14.15 MEASUREMENT RESULTS (PCS CDMA Face – 2.5cm Space Flip Close)								
FREQUENCY		Modulation	Begin / End POWER [†]			Separation Distance (cm)	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
1880.00	600	PCS CDMA	24.08	23.86	Standard	2.5	Fixed	0.085
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
4. SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☐ Left Head ☒ Flat Phantom ☐ Right Head
5. SAR Configuration ☒ Face ☐ Body ☐ Hand
6. Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
7. Tissue parameters and temperatures are listed on the SAR plots.
8. Liquid tissue depth is 15.1 cm. ± 0.1


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**Figure 14.15 Face SAR Test Setup
-- Push To Talk/ Flip Closed Position --**

PCTEST™ SAR REPORT		Class II Permissive Change Report 		Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJWX4700	Page 32 of 39

SAR DATA SUMMARY (Continued)

Mixture Type: 1900MHz Brain

14.16 MEASUREMENT RESULTS (PCS CDMA Face – 2.5cm Space Flip Open)

FREQUENCY		Modulation	Begin / End POWER [†]			Separation Distance (cm)	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
1880.00	600	PCS CDMA	24.05	23.97	Standard	2.5	Fixed	0.089
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Brain 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
- All modes of operation were investigated, and worst-case results are reported.
- Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured

☒ Conducted	☐ ERP	☐ EIRP
---	------------------------------	-------------------------------
- SAR Measurement System

☒ DASY4	☐ IDX
---	------------------------------
- Phantom Configuration

☐ Left Head	☒ Flat Phantom	☐ Right Head
------------------------------------	--	-------------------------------------
- SAR Configuration

☒ Face	☐ Body	☐ Hand
--	-------------------------------	-------------------------------
- Test Signal Call Mode

☒ Manu. Test Codes	☐ Base Station Simulator
--	---
- Tissue parameters and temperatures are listed on the SAR plots.
- Liquid tissue depth is 15.1 cm. ± 0.1



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**Figure 14.16 Face SAR Test Setup
-- Push To Talk/ Flip Open Position --**

PCTEST™ SAR REPORT		Class II Permissive Change Report		Reviewed by: Quality Manager
SAR Filename: SAR-240716437.BEJ	Test Dates: August 4-5, 2004	Phone Type: Tri-Mode Dual-Band	FCC ID: BEJWX4700	Page 33 of 39

SAR DATA SUMMARY (Continued)

Mixture Type: 835MHz Muscle

14.17 MEASUREMENT RESULTS (AMPS Body SAR w/o Holster)								
FREQUENCY		Modulation	Begin / End POWER*			Separation Distance (cm) **	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
824.04	0991	AMPS	26.61	26.50	Standard	1.5 [w/out Holster]	Fixed	1.140
836.49	0383	AMPS	26.64	26.54	Standard	1.5 [w/out Holster]	Fixed	1.150
848.97	0799	AMPS	26.63	26.45	Standard	1.5 [w/out Holster]	Fixed	1.280
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Muscle 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
- All modes of operation were investigated, and worst-case results are reported.
- Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured

☒ Conducted	☐ ERP	☐ EIRP
---	------------------------------	-------------------------------
- SAR Measurement System

☒ DASY4	☐ IDX	
---	------------------------------	--
- Phantom Configuration

☐ Left Head	☒ Flat Phantom	☐ Right Head
------------------------------------	--	-------------------------------------
- SAR Configuration

☐ Head	☒ Body	☐ Hand
-------------------------------	--	-------------------------------
- Test Signal Call Mode

☒ Manu. Test Codes	☐ Base Station Simulator	
--	---	--
- **Test Configuration

☐ With Belt-clip	☒ Without Belt-clip	
---	---	--
- Tissue parameters and temperatures are listed on the SAR plots.
- Both sides of the phone were tested and the worst-case side is reported.
- Liquid tissue depth is 15.1 cm. ± 0.1


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Vice President Engineering



**Figure 14.17 Body SAR Test Setup
-- w/o Belt-clip --**

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SAR DATA SUMMARY (Continued)

Mixture Type: 835MHz Muscle

14.18 MEASUREMENT RESULTS (CDMA Body SAR w/o Belt-clip)								
FREQUENCY		Modulation	Begin / End POWER [†]			Separation Distance (cm) ^{**}	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
824.70	1013	CDMA	24.18	24.02	Standard	1.5 [w/out Belt-clip]	Fixed	0.627
835.89	0363	CDMA	24.14	24.05	Standard	1.5 [w/out Belt-clip]	Fixed	0.726
848.31	0777	CDMA	24.10	24.03	Standard	1.5 [w/out Belt-clip]	Fixed	0.736
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Muscle 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
- All modes of operation were investigated, and worst-case results are reported.
- Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured

☒ Conducted	☐ ERP	☐ EIRP
---	------------------------------	-------------------------------
- SAR Measurement System

☒ DASY4	☐ IDX	
---	------------------------------	--
- Phantom Configuration

☐ Left Head	☒ Flat Phantom	☐ Right Head
------------------------------------	--	-------------------------------------
- SAR Configuration

☐ Head	☒ Body	☐ Hand
-------------------------------	--	-------------------------------
- Test Signal Call Mode

☒ Manu. Test Codes	☐ Base Station Simulator	
--	---	--
- **Test Configuration

☐ With Belt-clip	☒ Without Belt-clip	
---	---	--
- Tissue parameters and temperatures are listed on the SAR plots.
- Both sides of the phone were tested and the worst-case side is reported.
- Liquid tissue depth is 15.1 cm. ± 0.1


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Vice President Engineering



**Figure 14.18 Body SAR Test Setup
-- w/o Belt-clip --**

PCTEST™ SAR REPORT		Class II Permissive Change Report 		Reviewed by: Quality Manager
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SAR DATA SUMMARY (Continued)

Mixture Type: 1900MHz Muscle

14.19 MEASUREMENT RESULTS (PCS CDMA Body SAR w/o Belt-clip)								
FREQUENCY		Modulation	Begin / End POWER*			Separation Distance (cm) **	Antenna Position	SAR (W/kg)
MHz	Ch.		(dBm)		Battery			
1851.25	0025	PCS CDMA	24.12	24.03	Standard	1.5 [w/out Belt-clip]	Fixed	0.533
1880.00	0600	PCS CDMA	24.07	23.94	Standard	1.5 [w/out Belt-clip]	Fixed	0.400
1908.75	1175	PCS CDMA	24.12	23.88	Standard	1.5 [w/out Belt-clip]	Fixed	0.180
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Muscle 1.6 W/kg (mW/g) averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [July 2001].
 - All modes of operation were investigated, and worst-case results are reported.
 - Battery is fully charged for all readings. Standard batteries are the only options.
- *Power Measured ☒ Conducted ☐ ERP ☐ EIRP
4. SAR Measurement System ☒ DASY4 ☐ IDX
- Phantom Configuration ☐ Left Head ☒ Flat Phantom ☐ Right Head
5. SAR Configuration ☐ Head ☒ Body ☐ Hand
6. Test Signal Call Mode ☒ Manu. Test Codes ☐ Base Station Simulator
7. **Test Configuration ☐ With Belt-clip ☒ Without Belt-clip
- Tissue parameters and temperatures are listed on the SAR plots.
 - Both sides of the phone were tested and the worst-case side is reported.
 - Liquid tissue depth is 15.1 cm. ± 0.1


Alfred Cirwithian
Vice President Engineering



**Figure 14.19 Body SAR Test Setup
-- w/o Belt-clip --**

PCTEST™ SAR REPORT		Class II Permissive Change Report		Reviewed by: Quality Manager
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15. SAR TEST EQUIPMENT

Equipment Calibration

Table 15.1 Test Equipment Calibration

EQUIPMENT SPECIFICATIONS			
Type		Calibration Date	Serial Number
Stäubli Robot RX60L		February 2004	599131-01
Stäubli Robot Controller		February 2004	PCT592
Stäubli Teach Pendant (Joystick)		February 2004	3323-00161
Micron Computer, 450 MHz Pentium III, Windows NT		February 2004	PCT577
SPEAG EDC3		February 2004	321
SPEAG DAE3		January 2004	330
SPEAG E-Field Probe ES3DV2		September 2003	3022
SPEAG Dummy Probe		February 2004	PCT583
SPEAG SAM Twin Phantom V4.0		February 2004	PCT666
SPEAG Light Alignment Sensor		February 2004	205
PCTEST Validation Dipole D300V2		September 2003	PCT301
SPEAG Validation Dipole D835V2		January 2004	PCT512
SPEAG Validation Dipole D1900V2		January 2004	PCT613
Brain Equivalent Matter (300MHz)		August 2004	PCTBEM601
Brain Equivalent Matter (835MHz)		August 2004	PCTBEM101
Brain Equivalent Matter (1900MHz)		August 2004	PCTBEM301
Muscle Equivalent Matter (300MHz)		August 2004	PCTMEM701
Muscle Equivalent Matter (835MHz)		August 2004	PCTMEM201
Muscle Equivalent Matter (1900MHz)		August 2004	PCTMEM401
Microwave Amp. Model: 5S1G4, (800MHz - 4.2GHz)		January 2004	22332
Gigatronics 8651A Power Meter		January 2004	1835299
HP-8648D (9kHz ~ 4GHz) Signal Generator		January 2004	PCT530
Amplifier Research 5S1G4 Power Amp		January 2004	PCT540
HP-8753E (30kHz ~ 3GHz) Network Analyzer		January 2004	PCT552
HP85070B Dielectric Probe Kit		January 2004	PCT501
Ambient Noise/Reflection, etc.	<12mW/kg/<3%of SAR	January 2004	Anechoic Room PCT01

NOTE:

The E-field probe was calibrated by SPEAG, by waveguide technique procedure. Dipole Validation measurement is performed by PCTEST Lab. before each test. The brain simulating material is calibrated by PCTEST using the dielectric probe system and network analyzer to determine the conductivity and permittivity (dielectric constant) of the brain-equivalent material.

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16. CONCLUSION

Measurement Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the FCC. These measurements are taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The tested device complies with the requirements in respect to all parameters subject to the test. The test results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because innumerable factors may interact to determine the specific biological outcome of an exposure to electromagnetic fields, any protection guide shall consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.[3]

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17. REFERENCES

- [1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, Aug. 1996.
- [2] ANSI/IEEE C95.1 - 1991, *American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300kHz to 100GHz*, New York: IEEE, Aug. 1992.
- [3] ANSI/IEEE C95.3 - 1991, *IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave*, New York: IEEE, 1992.
- [4] Federal Communications Commission, OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*, July 2001.
- [5] IEEE Standards Coordinating Committee 34 – IEEE 1528 - 2003, *Draft Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices*.
- [6] NCRP, National Council on Radiation Protection and Measurements, *Biological Effects and Exposure Criteria for RadioFrequency Electromagnetic Fields*, NCRP Report No. 86, 1986. Reprinted Feb. 1995.
- [7] T. Schmid, O. Egger, N. Kuster, *Automated E-field scanning system for dosimetric assessments*, IEEE Transaction on Microwave Theory and Techniques, vol. 44, Jan. 1996, pp. 105-113.
- [8] K. Pokovic, T. Schmid, N. Kuster, *Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies*, ICECOM97, Oct. 1997, pp. 120-124.
- [9] K. Poković, T. Schmid, and N. Kuster, *E-field Probe with improved isotropy in brain simulating liquids*, Proceedings of the ELMAR, Zadar, Croatia, June 23-25, 1996, pp. 172-175.
- [10] Schmid & Partner Engineering AG, Application Note: Data Storage and Evaluation, June 1998, p2.
- [11] V. Hombach, K. Meier, M. Burkhardt, E. Kuhn, N. Kuster, *The Dependence of EM Energy Absorption upon Human Head Modeling at 900 MHz*, IEEE Transaction on Microwave Theory and Techniques, vol. 44 no. 10, Oct. 1996, pp. 1865-1873.
- [12] N. Kuster and Q. Balzano, *Energy absorption mechanism by biological bodies in the near field of dipole antennas above 300MHz*, IEEE Transaction on Vehicular Technology, vol. 41, no. 1, Feb. 1992, pp. 17-23.
- [13] G. Hartsgrrove, A. Kraszewski, A. Surowiec, *Simulated Biological Materials for Electromagnetic Radiation Absorption Studies*, University of Ottawa, Bioelectromagnetics, Canada: 1987, pp. 29-36.
- [14] Q. Balzano, O. Garay, T. Manning Jr., *Electromagnetic Energy Exposure of Simulated Users of Portable Cellular Telephones*, IEEE Transactions on Vehicular Technology, vol. 44, no.3, Aug. 1995.
- [15] W. Gander, *Computermathematick*, Birkhaeuser, Basel, 1992.
- [16] W.H. Press, S.A. Teukolsky, W.T. Vetterling, and B.P. Flannery, *Numerical Recepies in C*, The Art of Scientific Computing, Second edition, Cambridge University Press, 1992.
- [17] Federal Communications Commission, OET Bulletin 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields. Supplement C, Dec. 1997.
- [18] N. Kuster, R. Kastle, T. Schmid, *Dosimetric evaluation of mobile communications equipment with known precision*, IEEE Transaction on Communications, vol. E80-B, no. 5, May 1997, pp. 645-652.
- [19] CENELEC CLC/SC111B, European Prestandard (prENV 50166-2), *Human Exposure to Electromagnetic Fields High-frequency: 10kHz-300GHz*, Jan. 1995.
- [20] Prof. Dr. Niels Kuster, ETH, Eidgenössische Technische Hochschule Zürich, *Dosimetric Evaluation of the Cellular Phone*.

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APPENDIX A: SAR TEST DATA