## **CONDUCTED OUTPUT POWER FOR HANDSET**

The conducted output power was re-measured with a E4446A which has much less measurement uncertainty. The accuracy of the E4446A is +/-0.6dB; while 8565EC is +/-1.9dB. For the transmission slot timing, it was also re-measured in expanded mode to get most accurate readings.

Following is specification comparison tables between E4446A and 8565EC:

Performance         *         **         ***         ***         ***         ***         ***         ***         ***         ****         *         *****         *         *****         *         *****         *	Overview	ESA-L Series Basic spectrum analysis	<b>8591C</b> Cable TV analyzer	ESA-E Series Mid-performance platform	856x EC Series High performance portable	PSA Series Advanced high performance platform
Price       3       45       45       453       454         Application specific solutions       *       * * * * *       *       * * * * *         Application specific solutions       *       * * * * *       *       * * * * *         Specification summary       Standard       Standard       Standard       Standard       Standard         Specification summary       30 Hz to 25.5 GHz       30 Hz to 325 GHz <sup>1.2</sup> 30 Hz to 325 GHz <sup>1.2</sup> 30 Hz to 325 GHz <sup>1.2</sup> Future         Specification summary       Specification summary       Specification summary       50 ms       1 ms       1 ms         Specification summary       Specification summary       20 us       2 5 ms <sup>1</sup> 50 ms       1 ms         Specification summary       Specification summary       2 0 us       2 5 ms <sup>1</sup> 50 ms       1 ms         Local measurement rate over GHZ       2 30 second       7 / second       2 40 / second       10 / second       2 50 / second         Phase noise at 1 GHz (10 HHz offset)       > 90 dBc/Hz       -90 dBc/Hz       -113 dBc/Hz       -114 dBc/Hz         Phase noise at 1 GHz (10 HHz offset)       -90 dBc/Hz       -90 dBc/Hz       -113 dBc/Hz       -114 dBc/Hz         Phase noise at 1 GHz (10 HHz offset)       -90 dBc/Hz		*	**	***	****	****
Application specific solutions $\star$ <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
Espendbolk platform         Standard         Standard<		1				
Performance options         Available         Available         Available         Standard         Standard         Standard           Frequency range         9 kHz to 26.5 GHz         30 Hz to 25.5 GHz         1         30 Hz to 50.5 GHz         1         30 Hz to 50.5 GHz         1         30 Hz to 50.5 GHz         1         30 Hz to 325 GHz         1         Future           Specification summary         Specification summary         30 Hz to 325 GHz         1         10 Hz to 325 GHz         1         Future           Specification summary         Specification summary         20 ms         1 ms         50 ms         1 ms         1         ms           Colume assumement rate 1         2.20 / second         9 / second         2.40 / second         10 / second         2.50 / second         2.60 / second         2.60 / second         2.60 / second         1 ms         0         minutes         30 minutes         5 minutes         30 minutes         5 minutes         30 minutes         5 minutes         30 minutes         1 ms					*	
Frequency range       9 Hz to 26.5 GHz       9 kHz to 1.8 GHz       30 Hz to 26.5 GHz       30 Hz to 50 GHz       31 Hz to 50 GHz         Specification summary       Specification summary       30 Hz to 325 GHz       30 Hz to 325 GHz       71 Hz       30 Hz to 50 GHz       Future         Specification summary       Specification summary       30 Hz to 325 GHz       30 Hz to 325 GHz       71 Hz       71 Hz       71 Hz         Specification summary       4 ms       20 ms       1 ms       50 ms       1 ms       1 ms         Coal measurement rate "1"       2 82 //second       9 //second       2 40 //second       10 //second       2 50 //second       2 50 //second         Brenote measurement rate "1"       2 90 //second       7 //second       2 40 //second       7 //second       2 60 //sec					<u>.</u>	
30 Ht to 325 GHt $^{12}$ 30 Ht to 325 GHt $^{12}$ Future           Specification summary           Colspan="2">Specification summary           Colspan= 20 µs         20 µs         25 ms         1 µs           Colspan= 20 µs         20 µs         2 40/second         2 #Specification summary           Colspan= 20 µs         20 µs         2 #Specification summary           Warm-up time         5 minutes         5 minutes         30 minutes           Phase noise of 1 Gbt (10 Mt) offset)         -133 dBc/Hz 1         -114 dBc/Hz         -114 dBc/Hz           Phase noise of 1 Gbt (10 Mt) offset)         -133 dBc/Hz 1         <						
Specification summary         Specification summary         Specification summary         Specification summary         Specification summary       Specification summary         Specification summary       Specification summary         Minimum Paro span sweep time       4 ms       20 ms       1 ms       50 ms       1 ms         Colspan="2">Specification summary         Minimum Paro span sweep time       4 ms       20 ms       1 ms       50 ms       1 ms         Baccoline at 1 GHz (10 MHz offset)       - 90 dBc/Hz       - 113 dBc/Hz       - 114 dBc/Hz         Phase noise at 1 GHz (10 MHz offset)      90 dBc/Hz       - 113 dBc/Hz       - 114 dBc/Hz         Phase noise at 1 GHz (10 MHz offset)      90 dBc/Hz       - 113 dBc/Hz       - 114 dBc/Hz         Phase noise at 1 GHz (10 MHz offset)      90 dBc/Hz       - 113 dBc/Hz       114 dBc/Hz         Phase noise at 1 GHz (10 MHz offset)      137 dBc/Hz      114 dBc/Hz       - 114 dBc/Hz		9 kHz to 26.5 GHz	9 kHz to 1.8 GHz			
Speed         Minimum RF avesptime         4 ms         20 ms         1 ms         50 ms         1 ms           Minimum zero span sweep time         4 ma         20 µs         25 ms <sup>1</sup> 50 ms         1 µs           Local measurement rote <sup>11</sup> $\geq$ 28/second $\geq$ 40/second         10/second $\geq$ 50/second           Benote measurement rote in equency turing time <sup>11</sup> $\geq$ 30 ms $\leq$ 40/second         7/second $\geq$ 40/second           Phase noise visits         50 minutes         5 minutes         5 minutes         5 minutes           Phase noise visits         10 Hz offset)         -90 dBc/Hz         -90 dBc/Hz         -113 dBc/Hz         -114 dBc/Hz           Phase noise visits         10 Hz offset)         -90 dBc/Hz         -90 dBc/Hz         -113 dBc/Hz         -114 dBc/Hz           Phase noise visits         10 Hz offset)         -137 dBc/Hz         -113 dBc/Hz         -114 dBc/Hz           Phase noise visits         10 Hz offset)         -137 dBc/Hz         -113 dBc/Hz         -114 dBc/Hz           Phase noise visits         10 Hz offset)         -137 dBc/Hz         -133 dBc/Hz         -114 dBc/Hz           Phase noise visits         10 Hz offset)         -137 dBc/Hz         -113 dBc/Hz         -113 dBc/Hz           Maximum	with external mixing			30 Hz to 325 GHz <sup>1,2</sup>	30 Hz to 325 GHz <sup>1,2</sup>	Future
Minimum RF sweep time         4 ms         20 ms         1 ms         50 ms         1 ms           Minimum zero span sweep time         4 ms         20 µs         25 ns <sup>1</sup> 50 ms         1 µs           Local measurement rate         11         280/second         240/second         10/second         ≥60/second           Renote measurement rate over GPIB <sup>11</sup> 200 vscond         7/second         ≥40/second         7/second         ≥40/second           RF center frequency tuning time <sup>11</sup> 500 ms         ≤75 ms         5 minutes         30 minutes           Phase noise stability         Phase noise at 1 GHz (10 MHz offset)         -90 dBc/Hz         -113 dBc/Hz         -114 dBc/Hz           Phase noise at 1 GHz (10 MHz offset)         -90 dBc/Hz         -133 dBc/Hz <sup>11</sup> -132 dBc/Hz <sup>10</sup> -144 dBc/Hz           Phase noise at 1 GHz (10 MHz offset)         -151 (-157 <sup>11</sup> ) dBc/Hz         -151 (-157 <sup>11</sup> ) dBc/Hz         -151 (-157 <sup>11</sup> ) dBc/Hz           Phase noise at 1 GHz (10 MHz offset)         -133 dBc/Hz <sup>11</sup> -132 dBc/Hz <sup>11</sup> -151 (-157 <sup>11</sup> ) dBc/Hz           Maximum second-order         -00 dBm         -5 dBm         0 dBm         +30 dBm         +30 dBm           Maximum second-order         -01 of 0.48         0 to 70 dB         to 70 dB         10 dB dB         130	Specification summary					
Minimum zero span sweep time       4 ms       20 µs       25 ns <sup>1</sup> 50 ms       1 µs         Local measurement rate wer 50 <sup>11</sup> ≥ 28/second       9/second       ≥ 40/second       ≥ 60/second       ≥ 60/second         Brenote measurement rate wer 50 <sup>11</sup> ≥ 30/second       7/second       ≥ 40/second       7/second       ≥ 45/second         BF center frequency tuning time <sup>11</sup> ≤ 90 ms       ≤ 75 ms       30 minutes       5 minutes       30 minutes         Phase noise of 16 Hz (10 kHz offset)       -90 dBc/Hz       -90 dBc/Hz       -113 dBc/Hz       -114 dBc/Hz         Phase noise of 16 Hz (10 kHz offset)       -90 dBc/Hz       -90 dBc/Hz       -113 dBc/Hz       -114 dBc/Hz         Phase noise of 16 Hz (10 kHz offset)       -90 dBc/Hz       -133 dBc/Hz <sup>1</sup> -151 dBc/Hz       -151 (-157 <sup>11</sup> ) dBc/Hz         Phase noise of 16 Hz (10 kHz offset)       -137 dBc/Hz <sup>1</sup> -152 dBc/Hz <sup>10</sup> -151 (-157 <sup>11</sup> ) dBc/Hz         Maximum third-order       dynamic range at 16 Hz       83 dB       108 dB       108 dB       103 dB         Maximum safe input       +30 dBm       +30 dBm       +30 dBm       +30 dBm       +30 dBm       +30 dBm         Atterwater range and tarp aic       0 to 65 dB <sup>3</sup> 0 to 70 dB       0 to 65 dB <sup>3</sup> 0 to 70 dB       in 5 dB ste	Speed					
Local measurement rate $^{11}$ ≥ 28/second       9/second       ≥ 40/second       10/second       ≥ 50/second         Remote measurement rate over GPIB <sup>11</sup> ≥ 30/second       7/second       ≥ 40/second       7/second       ≥ 40/second         Remote measurement rate over GPIB <sup>11</sup> ≥ 00 ms       ≤ 75 ms       9         Warm-up time       5 minutes       5 minutes       5 minutes       30 minutes         Phase noise at 1 GHz (10 MHz offset)       -90 dBc/Hz       -90 dBc/Hz       -113 dBc/Hz       -114 dBc/Hz         Phase noise at 1 GHz (10 MHz offset)       -133 dBc/Hz       -113 dBc/Hz       -114 dBc/Hz       -114 dBc/Hz         Phase noise at 1 GHz (10 MHz offset)       -133 dBc/Hz       -133 dBc/Hz       -113 dBc/Hz       -114 dBc/Hz         Optamic range       Maximum third-order       -137 dBc/Hz       -151 (-157 <sup>11</sup> ) dBc/H       -151 (-157 <sup>11</sup> ) dBc/H         Maximum third-order       -90 dBm       -5 dB       108 dB 1.10       108 dB       113 dB         Maximum time input       +30 dBm       +30 dBm       +30 dBm       +30 dBm       +30 dBm         Maximum site input       +30 dBm       -95 dB       100 dB       113 dB         Maximum site input       +30 dBm       +30 dBm       +30 dBm       +30 dBm	Minimum RF sweep time	4 ms	20 ms	1 ms	50 ms	1 ms
Local measurement rate <sup>11</sup> ≥ 28/zecond       9/zecond       ≥ 40/zecond       10/zecond       ≥ 50/zecond         Remote measurement rate over GPIB <sup>11</sup> ≥ 30/zecond       7/zecond       ≥ 40/zecond       7/zecond       ≥ 40/zecond         Remote measurement rate over GPIB <sup>11</sup> ≥ 30 minutes       5 minutes       5 minutes       30 minutes         Phase noise / stability       Phase noise at 10 Hz (10 Hz offset)       -90 dBc/Hz       -90 dBc/Hz       -113 dBc/Hz       -114 dBc/Hz         Phase noise at 10 Hz (10 Hz offset)       -90 dBc/Hz       -133 dBc/Hz <sup>11</sup> -132 dBc/Hz <sup>10</sup> -144 dBc/Hz         Phase noise at 10 GHz (10 Hz offset)       -133 dBc/Hz <sup>11</sup> -132 dBc/Hz <sup>10</sup> -144 dBc/Hz         Phase noise at 10 Hz (10 Hz offset)       -133 dBc/Hz <sup>11</sup> -132 dBc/Hz <sup>10</sup> -151 (-157 <sup>11</sup> ) dBc/H         Oynamic range       Maximum third-order       -137 dBc/Hz <sup>11</sup> -151 (-157 <sup>11</sup> ) dBc/H       04B 113 dB         Maximum scienci on order	Minimum zero span sweep time	4 ms	20 µs	25 ns <sup>1</sup>	50 ms	1 µs
Remote measurement rate over GPIB <sup>11</sup> $\geq$ 30/second       7/second $\geq$ 40/second       7/second $\geq$ 45/second         RF center frequency tuning time <sup>11</sup> $\leq$ 90 ms $\leq$ 75 ms       30 minutes       5 minutes       30 minutes         Phase noise / stability       Phase noise at 1 GHz (10 MHz offset) $-90  dBc/Hz$ $-90  dBc/Hz$ $-113  dBc/Hz$ $-114  dBc/Hz$ Phase noise at 1 GHz (10 MHz offset) $-90  dBc/Hz$ $-133  dBc/Hz^{10}$ $-144  dBc/Hz$ $-114  dBc/Hz$ Phase noise at 1 GHz (10 MHz offset) $-90  dBc/Hz$ $-133  dBc/Hz^{10}$ $-114  dBc/Hz$ $-115  (-157^{11})  dBc/Hz$ Variance range       Maximum third-order $dy_{manic range at 1 GHz$ 83 dB       88 dB $106  dB^{1.10}$ $108  dB$ $113  dB$ Maximum second-order $dy_{manic range at 1 GHz$ 78.5 dB $78.5  dB$ $97.5  dB  1.10$ $95  dB$ $103  dB$ 1 dB gain compression <sup>5</sup> $0  dBm$ $-5  dBm$ $0  dBm$ $+30  dBm$ <td< td=""><td></td><td>≥ 28/second</td><td>9/second</td><td>≥ 40/second</td><td>10/second</td><td>≥ 50/second</td></td<>		≥ 28/second	9/second	≥ 40/second	10/second	≥ 50/second
Warm-up time         5 minutes         30 minutes         5 minutes         30 minutes           Phase noise / stability         Phase noise / stability         -90 dBc/Hz         -113 dBc/Hz         -114 dBc/Hz           Phase noise at 1 GHz (10 kHz offset)         -90 dBc/Hz         -133 dBc/Hz <sup>1</sup> -132 dBc/Hz <sup>10</sup> -144 dBc/Hz           Phase noise at 1 GHz (10 MHz offset)         -137 dBc/Hz <sup>1</sup> -132 dBc/Hz <sup>10</sup> -144 dBc/Hz           Phase noise at 1 GHz (10 MHz offset)         -137 dBc/Hz <sup>11</sup> -151 (-157 <sup>11</sup> ) dBc/Hz         -151 (-157 <sup>11</sup> ) dBc/Hz           Varianum thick-order	Remote measurement rate over GPIB <sup>11</sup>	≥ 30/second	7/second	≥ 40/second	7/second	≥ 45/second
Warm-up time         5 minutes         30 minutes         5 minutes         30 minutes           Phase noise / stability         Phase noise / stability         -90 dBc/Hz         -113 dBc/Hz         -114 dBc/Hz           Phase noise at 1 GHz (10 kHz offset)         -90 dBc/Hz         -133 dBc/Hz <sup>1</sup> -132 dBc/Hz <sup>10</sup> -144 dBc/Hz           Phase noise at 1 GHz (10 MHz offset)         -137 dBc/Hz <sup>1</sup> -132 dBc/Hz <sup>10</sup> -144 dBc/Hz           Phase noise at 1 GHz (10 MHz offset)         -137 dBc/Hz <sup>11</sup> -151 (-157 <sup>11</sup> ) dBc/Hz         -151 (-157 <sup>11</sup> ) dBc/Hz           Varianum thick-order						
Phase noise at 1 GHz (10 kHz offset) $-90 \text{ dBc/Hz}$ $-90 \text{ dBc/Hz}$ $-113 \text{ dBc/Hz}$ $-114 \text{ dBc/Hz}$ Phase noise at 1 GHz (10 MHz offset) $-133 \text{ dBc/Hz}$ $-133 \text{ dBc/Hz}$ $-132 \text{ dBc/Hz}$ $-114 \text{ dBc/Hz}$ Phase noise at 1 GHz (10 MHz offset) $-133 \text{ dBc/Hz}$ $-133 \text{ dBc/Hz}$ $-132 \text{ dBc/Hz}$ $-114 \text{ dBc/Hz}$ Dynamic range       Maximum third-order $-137 \text{ dBc/Hz}$ $-137 \text{ dBc/Hz}$ $-151 (-157^{11}) \text{ dBc/H}$ Maximum second-order $-90 \text{ dBm}$ $-5 \text{ dBm}$ $08 \text{ dB}$ $108 \text{ dB}$ $110$ $096 \text{ dB}$ $103 \text{ dB}$ Maximum second-order $-90 \text{ dBm}$ $-5 \text{ dBm}$ $0 \text{ dBm}$ $-5 \text{ dBm}$ $430  dB$			30 minutes		5 minutes	30 minutes
Phase noise at 1 GHz (1 MHz offset) $-133 \text{ dBc/Hz}^{10}$ $-132 \text{ dBc/Hz}^{10}$ $-144 \text{ dBc/Hz}$ Phase noise at 1 GHz (10 MHz offset) $-137 \text{ dBc/Hz}^{11}$ $-132 \text{ dBc/Hz}^{10}$ $-161 (-157^{11}) \text{ dBc/Hz}$ Dynamic range       Maximum third-order $-137 \text{ dBc/Hz}^{11}$ $-132 \text{ dBc/Hz}^{11}$ $-151 (-157^{11}) \text{ dBc/Hz}$ Maximum scond-order $dynamic range at 1 \text{ GHz}$ 83 dB       88 dB $108 \text{ dB} 1.10$ $108 \text{ dB}$ $113 \text{ dB}$ Maximum scond-order $dynamic range at 1 \text{ GHz}$ 78.5 dB       78.5 dB $97.5 \text{ dB} 1.10$ $95 \text{ dB}$ $103 \text{ dB}$ 1 dB gain compression 5       0 dBm $-5 \text{ dBm}$ $0 \text{ dBm}$ $+30 \text{ dBm}$ $430 \text{ dBm}$ $430 \text{ dBm}$ $430 \text{ dBm}$ $10 \text{ to } 70 \text{ dB}$ $10 \text{ to } 70 \text{ to } 70  to$	Phase noise/ stability					
Phase noise at 1 GHz (1 MHz offset) $-133 \text{ dBc/Hz}^{10}$ $-132 \text{ dBc/Hz}^{10}$ $-144 \text{ dBc/Hz}$ Phase noise at 1 GHz (10 MHz offset) $-137 \text{ dBc/Hz}^{11}$ $-132 \text{ dBc/Hz}^{10}$ $-161 (-157^{11}) \text{ dBc/Hz}$ Dynamic range       Maximum third-order $-137 \text{ dBc/Hz}^{11}$ $-132 \text{ dBc/Hz}^{11}$ $-151 (-157^{11}) \text{ dBc/Hz}$ Maximum scond-order $dynamic range at 1 GHz$ 83 dB       88 dB $108 \text{ dB} 1.10$ $108 \text{ dB}$ $113 \text{ dB}$ Maximum scond-order $dynamic range at 1 GHz$ 78.5 dB $78.5 \text{ dB}$ $97.5 \text{ dB} 1.10$ $95 \text{ dB}$ $103 \text{ dB}$ 1 dB gain compression 5       0 dBm $-5 \text{ dBm}$ $0 \text{ dBm}$ $+30 \text{ dBm}$ $430 \text{ dBm}$ $430 \text{ dBm}$ $430 \text{ dBm}$ $10 \text{ to } 70 \text{ dB}$	Phase poice at 1 GHz (10 kHz offect)	-00 dBa/lb	-00 dBo/Hz		-112 dPo/Uz	_111 dBa/Ur
Phase noise at 1 GHz (10 MHz offset) $-137 \text{ dBc/Hz}^1$ $-151 (-157^{11}) \text{ dBc/Hz}^1$ Dynamic range       Maximum third-order		-90 abc/ nz	-90 0DC/H2			
Dynamic range           Maximum third-order         dynamic range at 1 GHz         83 dB         88 dB         108 dB 1.10         108 dB         113 dB           Maximum second-order         dynamic range at 1 GHz         78.5 dB         78.5 dB         97.5 dB         103 dB           IdB gain compression 5         0 dBm         -5 dBm         0 dBm         -5 dBm         +30 dBm           Maximum safe input         + 30 dBm         - 30 dBm         - 30 dBm         - 310 dB         - 310 dB <th< td=""><td></td><td></td><td></td><td></td><td>-132 dbg/h210</td><td></td></th<>					-132 dbg/h210	
Maximum thid-order       Maximum thid-order       108 dB       108 dB       110       108 dB       113 dB         Maximum second-order       dynamic range at 1 GHz       78.5 dB       78.5 dB       97.5 dB       108 dB       109 dB       103 dB         1 dB gain compression 5       0 dBm       -5 dBm       0 dBm       -5 dBm       +30 dBm				-137 dbc/Hz		=151 (=157 ···) dBC/Hz
$\begin{array}{c c c c c c c c c c c c c c c c c c c $						
Maximum second-order       dynamic range at 1 GHz       78.5 dB       78.5 dB       97.5 dB       100       95 dB       103 dB         1 dB gain compression 5       0 dBm       -5 dBm       0 dBm       -5 dBm       +30 dBm       +10 dB       +10 dB       +10 dB		83 dB	88 dB	108 dB 1, 10	108 dB	113 dB
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		00 00	00 00	100 02	100 02	110 00
1 dB gain compression 5       0 dBm       -5 dBm       0 dBm       -5 dBm       +30 dBm       +30 dBm         Maximum safe input       +30 dBm       +30 dBm       +30 dBm       +30 dBm       +30 dBm       +30 dBm         Attenuator range and step size       0 to 65 dB 3       0 to 70 dB       0 to 65 dB 3       0 to 70 dB 4       0 to 70 dB         Displayed average noise level (DANL)       at 1 GHz       -117 dBm       -98 dBmV 1       -150 dBm <sup>1,10</sup> /-166 dBm <sup>6,10</sup> 151 dBm 1       -154 dBm / -168 dBm         Calibrated display range (log amplifier)       85 dB       70 dB       85 dB to 120 dB 1       100 dB 7       > 110 dB         Accuracy       (9 kHz to 3 GHz)       ± 1.1 dB       ± 2.1 dB       ± 1.0 dB       ± 1.9 dB       ± 0.62 dB (± 0.24 dB 1         Span accuracy       ± 1.0 %       ± 2% to ± 3%       ± 0.5 %       ± 103 Hz       ± 100 Hz         Resolution       BBW range       1 kHz to 5 MHz       30 Hz <sup>1</sup> to 3 MHz       1 Hz <sup>1</sup> to 5 MHz       1 Hz to 2 MHz       1 Hz to 8 MHz         Best selectivity       15:1       10:1       5:1       5:1       4.1:1         BBW range       1 kHz to 5 MHz       30 Hz <sup>1</sup> to 3 MHz       1 Hz <sup>1</sup> to 5 MHz       1 Hz to 8 MHz         Best selectivity       15:1       10:1       5:1 <td></td> <td>78.5 dB</td> <td>78.5 dB</td> <td>97,5 dB 1, 10</td> <td>95 dB</td> <td>103 dB</td>		78.5 dB	78.5 dB	97,5 dB 1, 10	95 dB	103 dB
Maximum safe input       + 30 dBm       + 30 dBm <td></td> <td>0 dBm</td> <td>–5 dBm</td> <td>0 dBm</td> <td>-5 dBm</td> <td>+3 dBm</td>		0 dBm	–5 dBm	0 dBm	-5 dBm	+3 dBm
Attenuator range and step size       0 to 65 dB <sup>3</sup> 0 to 70 dB       0 to 65 dB <sup>3</sup> 0 to 70 dB       0 to 70 dB       0 to 70 dB         Displayed average noise level (DANL) at 1 GHz       -117 dBm       -98 dBmV <sup>1</sup> -150 dBm <sup>1,10</sup> /-166 dBm <sup>6,10</sup> 151 dBm <sup>1</sup> -154 dBm / -168 dBm         Calibrated display range (log amplifier)       85 dB       70 dB       85 dB to 120 dB <sup>1</sup> 100 dB <sup>2</sup> > 110 dB         Accuracy       0       98 dBmV <sup>1</sup> -150 dB m <sup>1,10</sup> /-166 dBm <sup>6,10</sup> 151 dBm <sup>1</sup> -154 dBm / -168 dBm         Overall amplitude accuracy       (9 kHz to 3 GHz)       ± 1.1 dB       ± 2.1 dB       ± 1.0 dB       ± 1.9 dB       ± 0.62 dB (± 0.24 dB <sup>1</sup> )         Span accuracy act 1 GHz <sup>9</sup> ± 2001 Hz       ± 210 Hz       ± 0.15 %       ± 100 Hz       ± 100 Hz         Resolution       Best selectivity       15:1       10:1       5:1       5:1       4.1:1         Best selectivity       15:1       10:1       5:1       5:1       4.1:1         Resolution       2 13:0 Hz       ≤ 30 Hz <sup>1</sup> ≤ 2 Hz <sup>1</sup> < 1 Hz       < 1 Hz to 8 MHz         Best selectivity       15:1       0.0       1, 3, 10       1, 3, 10       1, 3, 10       1, 3, 10       1, 3, 10       1, 3, 10       1, 3, 10       1, 4.1:1 <t< td=""><td></td><td>+30 dBm</td><td>+30 dBm</td><td>+30 dBm</td><td>+30 dBm</td><td>+30 dBm</td></t<>		+30 dBm	+30 dBm	+30 dBm	+30 dBm	+30 dBm
in 5 dB steps         in 10 dB steps         in 5 dB steps         in 10 dB steps         in 2 dB steps           Displayed average noise level (DANL) at 1 GHz         -117 dBm         -98 dBmV <sup>1</sup> -150 dBm <sup>1.10</sup> /-166 dBm <sup>6.10</sup> 151 dBm <sup>1</sup> -154 dBm / -168 dBm           Calibrated display range (log amplifier)         85 dB         70 dB         85 dB to 120 dB <sup>1</sup> 100 dB <sup>2</sup> > 110 dB           Accuracy         0         98 dBx/2         ± 1.0 dB         ± 1.9 dB         ± 0.62 dB (± 0.24 dB <sup>1</sup> )           Span accuracy         ± 1.1 dB         ± 2.1 dB         ± 1.0 dB         ± 1.9 dB         ± 0.62 dB (± 0.24 dB <sup>1</sup> )           Span accuracy         ± 1.0 %         ± 2% to ± 3%         ± 0.5 %         ± 1% to ± 5%         ± 0.2%           Frequency accuracy at 1 GHz <sup>9</sup> ± 2001 Hz         ± 210 Hz         ± 101 Hz         ± 103 Hz         ± 100 Hz           Resolution         8         8         1 Hz <sup>1</sup> to 5 MHz         1 Hz to 8 MHz         1 Hz to 8 MHz           Best selectivity         15:1         10:1         5:1         5:1         4.1:1           REW range         1 kHz to 5 MHz         30 Hz <sup>1</sup> to 3 MHz         1 Hz <sup>1</sup> to 5 MHz         1 Hz to 8 MHz           Best selectivity         15:1         10:1         5:1         4.1:1						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Automation range and step size					
Calibrated display range (log amplifier)       85 dB       70 dB       85 dB to 120 dB '       100 dB ''       > 110 dB         Accuracy       Overall amplitude accuracy       (9 kHz to 3 GHz) $\pm 1.1 dB$ $\pm 2.1 dB$ $\pm 1.0 dB$ $\pm 1.9 dB$ $\pm 0.62 dB$ ( $\pm 0.24 dB^1$ Span accuracy $\pm 1.0 \%$ $\pm 2\% to \pm 3\%$ $\pm 0.5 \%$ $\pm 103 Hz$ $\pm 0.62 dB$ ( $\pm 0.24 dB^1$ Span accuracy $\pm 1.0 \%$ $\pm 2\% to \pm 3\%$ $\pm 0.5 \%$ $\pm 103 Hz$ $\pm 0.62 dB$ ( $\pm 0.24 dB^1$ Span accuracy $\pm 1.0 \%$ $\pm 22\% to \pm 3\%$ $\pm 0.5 \%$ $\pm 103 Hz$ $\pm 0.62 dB$ ( $\pm 0.24 dB^1$ Span accuracy $\pm 1.0 \%$ $\pm 201 Hz$ $\pm 210 Hz$ $\pm 10.5 \%$ $\pm 10.2\%$ $\pm 0.62 dB$ ( $\pm 0.24 dB^1$ Span accuracy $\pm 1.0 \%$ $\pm 200 Hz$ $\pm 200 Hz$ $\pm 210 Hz$ $\pm 10.5 \%$ $\pm 0.52\%$ $\pm 10.2\%$ Frequency accuracy at 1 GHz % $\pm 2001 Hz$ $\pm 210 Hz$ $\pm 101 Hz$ $\pm 100 Hz$ $\pm 100 Hz$ Resolution       Best selectivity       15:1       10:1       5:1       4.1:1         Best selectivity       15:1       10:1       5:1       4.1:1       10\% steps ^8         Resi		•		·		
Accuracy         (9 kHz to 3 GHz) $\pm 1.1 \text{ dB}$ $\pm 2.1 \text{ dB}$ $\pm 1.0 \text{ dB}$ $\pm 1.9 \text{ dB}$ $\pm 0.62 \text{ dB} (\pm 0.24 \text{ dB}^3)$ Span accuracy $\pm 1.0 \text{ dB}$ $\pm 1.0 \text{ dB}$ $\pm 1.9 \text{ dB}$ $\pm 0.62 \text{ dB} (\pm 0.24 \text{ dB}^3)$ Frequency accuracy at 1 GHz <sup>9</sup> $\pm 2001 \text{ Hz}$ $\pm 270 \text{ Hz}$ $\pm 101 \text{ Hz}$ $\pm 103 \text{ Hz}$ $\pm 100 \text{ Hz}$ Resolution         RBW range       1 kHz to 5 MHz       30 Hz <sup>1</sup> to 3 MHz       1 Hz <sup>1</sup> to 5 MHz       1 Hz to 2 MHz       1 Hz to 8 MHz         Best selectivity       15:1       10:1       5:1       4.1:1         BBW step size       1, 3, 10       1, 3, 10       1, 3, 10       1, 3, 10         Residual FM $\leq 150 \text{ Hz}$ $\leq 30 \text{ Hz}^1$ $\leq 2 \text{ Hz}^1$ $< 1 \text{ Hz}$ $< 1 \text{ Hz}$ EMI resolution bandwidth       9 kHz & 120 kHz       200 Hz <sup>1</sup> , 9 & 120 kHz       200 Hz <sup>1</sup> , 9 & 120 kHz $10 \text{ MHz}^{11}$						
		80 G8	70 dB	85 dB to 120 dB	100 dB	> 110 dB
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	•					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		+ 1 1 dB	+ 21 dB	+ 1.0 dB	+ 1.9 dB	+ 0.62 dB (+0.24 dB12)
Frequency accuracy at 1 GHz <sup>9</sup> $\pm 2001$ Hz $\pm 210$ Hz $\pm 101$ Hz $\pm 103$ Hz $\pm 100$ Hz         Resolution       RBW range       1 kHz to 5 MHz       30 Hz <sup>1</sup> to 3 MHz       1 Hz <sup>1</sup> to 5 MHz       1 Hz to 2 MHz       1 Hz to 8 MHz         Best selectivity       15:1       10:1       5:1       5:1       4.1:1         BBW step size       1, 3, 10       1, 3, 10       1, 3, 10       1, 3, 10       10% steps 8         Residual FM $\leq 150$ Hz $\leq 30$ Hz <sup>1</sup> $\leq 2$ Hz <sup>1</sup> $< 1$ Hz $< 1$ Hz         EMI resolution bandwidths       9 kHz & 120 kHz       200 Hz <sup>1</sup> , 9 & 120 kHz       200 Hz <sup>1</sup> , 9 & 120 kHz $10$ MHz <sup>11</sup>						
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	<u> </u>					
Best selectivity         15:1         10:1         5:1         5:1         4.1:1           BBW step size         1, 3, 10         1, 3, 10         1, 3, 10         1, 3, 10         10% steps 8           Residual FM         ≤ 150 Hz         ≤ 30 Hz <sup>1</sup> ≤ 2 Hz <sup>1</sup> < 1 Hz						
BBW step size         1, 3, 10         1, 3, 10         1, 3, 10         1, 3, 10         10% steps 8           Residual FM         ≤ 150 Hz         ≤ 30 Hz <sup>1</sup> ≤ 2 Hz <sup>1</sup> < 1 Hz	RBW range	1 kHz to 5 MHz	30 Hz <sup>1</sup> to 3 MHz	1 Hz <sup>1</sup> to 5 MHz	1 Hz to 2 MHz	1 Hz to 8 MHz
Residual FM         ≤ 150 Hz         ≤ 30 Hz <sup>1</sup> ≤ 2 Hz <sup>1</sup> < 1 Hz         < 1 Hz           EMI resolution bandwidths         9 kHz & 120 kHz         200 Hz <sup>1</sup> , 9 & 120 kHz         200 Hz <sup>1</sup> , 9 & 120 kHz         10 MHz <sup>11</sup> Information bandwidth         10 MHz <sup>11</sup> 10 MHz <sup>11</sup> 10 MHz <sup>11</sup> 10 MHz <sup>11</sup>	Best selectivity	15:1	10:1	5:1	5:1	4.1:1
Residual FM         ≤ 150 Hz         ≤ 30 Hz <sup>1</sup> ≤ 2 Hz <sup>1</sup> < 1 Hz         < 1 Hz           EMI resolution bandwidths         9 kHz & 120 kHz         200 Hz <sup>1</sup> , 9 & 120 kHz         200 Hz <sup>1</sup> , 9 & 120 kHz         10 MHz <sup>11</sup> Information bandwidth         10 MHz <sup>11</sup> 10 MHz <sup>11</sup> 10 MHz <sup>11</sup> 10 MHz <sup>11</sup>	RBW step size	1, 3, 10	1, 3, 10	1, 3, 10	1, 3, 10	10% steps <sup>8</sup>
EMI resolution bandwidths         9 kHz & 120 kHz         200 Hz <sup>1</sup> , 9 & 120 kHz         200 Hz <sup>1</sup> , 9 & 120 kHz         10 MHz <sup>11</sup> Information bandwidth         10 MHz <sup>11</sup> 10 MHz <sup>1</sup>	Residual FM	≤ 150 Hz	≤ 30 Hz <sup>1</sup>	≤2 Hz <sup>1</sup>	< 1 Hz	
Information bandwidth 10 MHz <sup>11</sup>	EMI resolution bandwidths	9 kHz & 120 kHz		200 Hz <sup>1</sup> , 9 & 120 kHz		
						10 MHz <sup>11</sup>
	Maximum IF bandwidth			> 30 MHz11,14		> 30 MHz11,13

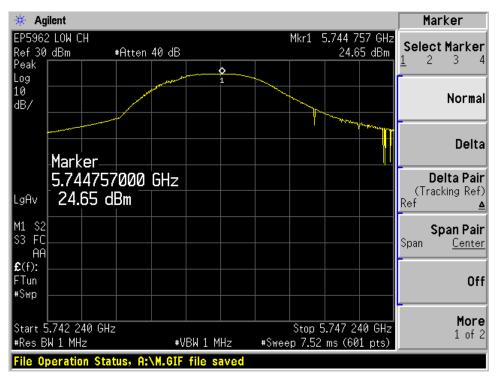
## **Test Equipment**

Manufacturer	Description	Model No.	Serial No.	Calibration Date
Agilent	Spectrum Analyzer	E4446A	US44300386	2004-11-10

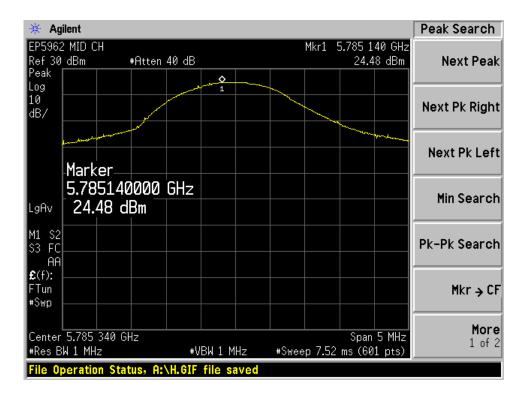
Measurement Result for Handset:

Channel	Frequency	Max Peak Output Power		Limit	Result
	MHz	(dBm)	(mW)	(mW)	
Low	5744.75	24.65	291.74	1000	Pass
Mid	5785.14	24.48	280.54	1000	Pass
High	5825.83	24.71	295.80	1000	Pass

## Low Channel



Mid. Channel



## High Channel

