

PMP3850 PERFORMANCE SPECIFICATION

A. RF Performance

1. General Test Condition

Item	Descriptions	Unit	Handset	Base	
1. 1	Supply Voltage	Vdc	3.8	9	
1. 2	Receiver(ear piece) Impedance	ohm	150		
1. 3	Telephone Line Impedance	ohm		600	
1. 4	Ringer Impedance	ohm	50		
1. 5	Antenna Impedance	ohm	50	50	
1. 6	Standard Deviation on Signal generator	±KHz	±5	±5	
1. 7	RF Signal Generator Impedance	ohm	50	50	
1. 8	Audio Signal Generator Impedance	ohm	600	600	
1. 9	Transmit Frequency @ Channel -1	MHz	2474. 000	2403. 05	
	Transmit Frequency @ Channel -2	MHz	2474. 050	2403. 1	
	Transmit Frequency @ Channel -3	MHz	2474. 100	2403. 15	
	Transmit Frequency @ Channel -4	MHz	2474. 150	2403. 2	
	Transmit Frequency @ Channel -5	MHz	2474. 200	2403. 25	
	Transmit Frequency @ Channel -6	MHz	2474. 250	2403. 3	
	Transmit Frequency @ Channel -7	MHz	2474. 300	2403. 35	
	Transmit Frequency @ Channel -8	MHz	2474. 350	2403. 4	
	Transmit Frequency @ Channel -9	MHz	2474. 400	2403. 45	
	Transmit Frequency @ Channel -10	MHz	2474. 450	2403. 5	
	Transmit Frequency @ Channel -11	MHz	2474. 500	2403. 55	
	Transmit Frequency @ Channel -12	MHz	2474. 550	2403. 6	
	Transmit Frequency @ Channel -13	MHz	2474. 600	2403. 65	
	Transmit Frequency @ Channel -14	MHz	2474. 650	2403. 7	
	Transmit Frequency @ Channel -15	MHz	2474. 700	2403. 75	
	Transmit Frequency @ Channel -16	MHz	2474. 750	2403. 8	
	Transmit Frequency @ Channel -17	MHz	2474. 800	2403. 85	
	Transmit Frequency @ Channel -18	MHz	2474. 850	2403. 9	
	Transmit Frequency @ Channel -19	MHz	2474. 900	2403. 95	
	Transmit Frequency @ Channel -20	MHz	2474. 950	2404	
	Transmit Frequency @ Channel -21	MHz	2475. 000	2404. 05	
	Transmit Frequency @ Channel -22	MHz	2475. 050	2404. 1	
	Transmit Frequency @ Channel -23	MHz	2475. 100	2404. 15	
	Transmit Frequency @ Channel -24	MHz	2475. 150	2404. 2	
	Transmit Frequency @ Channel -25	MHz	2475. 200	2404. 25	
	Transmit Frequency @ Channel -26	MHz	2475. 250	2404. 3	
	Transmit Frequency @ Channel -27	MHz	2475. 300	2404. 35	
	Transmit Frequency @ Channel -28	MHz	2475. 350	2404. 4	
	Transmit Frequency @ Channel -29	MHz	2475. 400	2404. 45	
	Transmit Frequency @ Channel -30	MHz	2475. 450	2404. 5	
	Transmit Frequency @ Channel -31	MHz	2475. 500	2404. 55	

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1. 1. 9	Transmit Frequency @ Channel -32	MHz	2475. 550	2404. 6	
	Transmit Frequency @ Channel -33	MHz	2475. 600	2404. 65	
	Transmit Frequency @ Channel -34	MHz	2475. 650	2404. 7	
	Transmit Frequency @ Channel -35	MHz	2475. 700	2404. 75	
	Transmit Frequency @ Channel -36	MHz	2475. 750	2404. 8	
	Transmit Frequency @ Channel -37	MHz	2475. 800	2404. 85	
	Transmit Frequency @ Channel -38	MHz	2475. 850	2404. 9	
	Transmit Frequency @ Channel -39	MHz	2475. 900	2404. 95	
	Transmit Frequency @ Channel -40	MHz	2475. 950	2405	
1. 1. 10	Unless otherwise specified,all audio input are 600ohm source impedance open load. Unless otherwise specified,use 15KHz filter when measure the deviation. Unless otherwise specified,measured on channel 20.				

2. Handset Unit

2.1 Handset Transmitter Performance

Item	Descriptions	Unit	Nominal	Limit	Result
2.1.1	Tx Output Power (direct measure)	dBm			
2.1.2	Tx Output Frequency Tolerance	Hz	± 0	± 500	
2.1.3	Adjacent channel power Attenuation @ ± 20 KHz	dB			
2.1.4	Spurious Attenuation	dB			
2.1.5	Nominal Deviation @20mV,1KHz	$\pm$ KHz	± 5	3to7	
2.1.6	Max Deviation @200mV ,1KHz	$\pm$ KHz	± 13	± 15	
2.1.7	Residual Modulation @20mV,1KHz	dB			
2.1.8	Deviation THD @20mV,1KHz	%	3	5max	
2.1.9	Modulation Slop @20mV,Ref=1KHz@300Hz	dB			
	Modulation Slop @20mV,Ref=1KHz@300Hz	dB			
2.1.10	Data Deviation	$\pm$ KHz	± 10	8to12	

2.2 Handset Receiver Performance

Item	Descriptions	Unit	Nominal	Limit	Result
2.2.1	Sensitivity @S/N20dB	dBuV			
2.2.2	Adjacent channel Attenuation @ ± 20 KHz	dB			
2.2.3	Co-Channel Rejection	dB			
2.2.4	Spurious Rejection	dB			
2.2.5	Bandwidth @-6dB	$\pm$ KHz			
2.2.6	Receiver Radiation	dBm			
2.2.7	Audio output Level @60dBuV RF input,1KHz	dBV			
2.2.8	Audio S/N Ratio @20dbuV RF input	dB			
2.2.9	Audio Output Response @60dbuV Ref=1KHz @300Hz	dB			
	Audio Output Response @60dbuV Ref=1KHz @3KHz	dB			
2.2.10	Audio Output Distortion @60dbuV input	%	1. 5	5 max	
2.2.11	Data Filter Response @60dBuV Ref=250Hz @100Hz	dB			
	Data Filter Response @60dBuV Ref=250Hz @500Hz	dB			

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2.3 Operating & Current Drain

Item	Descriptions	Unit	Nominal	Limit	Result
2.3.1	Battery Charge Current(1/10 of battery capacity)	mA	60	54 to 66	
2.3.2	Current Drain @ Ringer On	mA			
2.3.3	Current Drain @ Talk	mA			
2.3.4	Current Drain @ Standby	mA			
2.3.5	Current Drain @ During Battery Save	mA			
2.3.6	Operating Votage Range	Vdc	3.3 min	3.6 to 4.2	
2.3.7	Batt.Low Threshold Voltage	Vdc	3.3	3.2 to 3.4	
2.3.8	Ringer Output Level @1m distance	dBspl	75	60 min	

3. Base Unit

3.1 Base Transmitter Performance

Item	Descriptions	Unit	Nominal	Limit	Result
3.1.1	Tx Output Power (direct measure)	dBm			
3.1.2	Tx Output Frequency Tolerance	Hz			
3.1.3	Adjacent Channel Power Attenuation @+/-10KHz	dB			
3.1.4	Spurious Attenuation	dB			
3.1.5	Nominai Deviation @100mV,1KHz	± KHz			
3.1.6	Max Deviation @1000mV ,1KHz	± KHz			
3.1.7	Residual Modulation @100mV,1KHz	dB			
3.1.8	Deviation THD @100mV,1KHz	%			
3.1.9	Modulation Slop @100mV,Ref=1KHz@3KHz	dB			
	Modulation Slop @100mV,Ref=1KHz@300Hz	dB			
3.1.10	Data Deviation	±KHz			

3.2 Base receiver Performane

Item	Descriptions	Unit	Nominal	Limit	Result
3.2.1	Sensitivity @20dBs/N	dBuV			
3.2.2	Adjacent Channel Attenuation @+/-20KHz	dB			
3.2.3	Co-Channel Rejection	dB			
3.2.4	Suprious Response Rejection	dB			
3.2.5	Bandwide @-6dB	±KHz			
3.2.6	Squalch Sensitivity	dBuV			
3.2.7	Receiver Radiation	dBm			
3.2.8	Audio Output Level @60dBuV RF input,0Kl	dBV			
3.2.9	Audio Output S/N Ratio @20dBuV RF input,1KHz	dB			
3.2.10	Audio Output Diatortion @60dBuV RF input,1KHz	%			
3.2.11	Audio Output Response @60dBuV Ref=1KHz @300Hz	dB			
	Audio Output Response @60dBuV Ref=1KHz @3KHz	dB			
3.2.12	Audio Filter Response @60dBuV Ref=250Hz @100Hz	dB			
	Audio Filter Response @60dBuV Ref=250Hz @500Hz	dB			

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3.3 Operating & Current Drain

Item	Descriptions	Unit	Nominal	Limit	Result
3.3.1	Current Drain,Talk	mA			
3.3.2	Current Drain,Standby	mA			
3.3.3	Current Drain,Charge	mA			
3.3.4	Current Drain,Speaker Phone mode	mA			
3.3.5	Operating Votage Range	Vdc			
3.3.6	Ringer Output Level	mA			

B. Telephone Performance

1. DC Resistance

Item	Descriptions	Unit	Nominal	Limit	Result
1. 1	On-Hook DC Impedance at 0 to 100Vdc	Mohm	100	5	
1. 2	On-Hook DC Impedance at 100 to 200Vdc	Kohm	100	30	
1. 3	Off-Hook DC Impedance @18mA loop	ohm	260	350 max	
1. 4	Off-Hook DC Impedance @80mA loop	ohm	265	50 min	

2. AC Impedance

Item	Descriptions	Unit	Nominal	Limit	Result
2. 1	On-Hook AC Impedance at 15.3to 68Hz,40 to 150Vrr	Kohm	30	48 max	
2. 2	On-Hook AC Impedance at 5to 200Hz,1to10Vrms	Kohm	100<	80 min	
2. 3	On-Hook AC Impedance at 200to 3200Hz,0to 3Vrms	Kohm	100<	100 min	
2. 4	Return Loss at 500 to 2500 Hz,Ref=600ohm	dB	12	11 min	
2. 5	Return Loss at 200 to 3200 Hz,Ref=600ohm	dB	12	11 min	

3. Signalling

3.1 DTMF Signalling

Item	Descriptions	Unit	Nominal	Limit	Result
3.1.1	DTMF Frequency Tolerance	%	± 1	± 1.5	
3.1.2	Signaling Level				
	Low Group at 18 mA loop	dBm	-7	-10 to -3	
	High Group at 18 mA loop	dBm	-5	-8 to -2	
	Low Group at 80 mA loop	dBm	-7	-10 to -3	
	High Group at 80mA loop	dBm	-5	-8 to -2	
	Fair Maximum at 18mA loop	dBm			
	Fair Maximum at 80mA loop	dBm			
	Twist Level	dB	2	1 to 3	
3.1.3	signal Duration	mS	100	50 to 200	
3.1.4	Interdiglt Pause Time	mS	100	50 to 200	
3.1.5	DTMF distortion at 500 to 3400Hz	%	3	10 max	
3.1.6	Return Loss during DTMF Signalling	dB			
3.1.7	Volce Mute Attenuation During DTMF Signalling	dB			

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3.2 Loop Disconnect Signalling(Pulse Dialling)

Item	Descriptions	Unit	Nominal	Limit	Result
3.2.1	Pulse Rate	PPS	10	9 to 11	
3.2.2	Break Ratio	%	60	58 to 64	
3.2.3	interdigit Pause Time	mS	800	700 to 1000	
3.2.4	break Resistance	Kohm	150<	100 min	
3.2.5	Make Resistance at 20 mA	ohm	260	350 max	

3.3 Additional Requirement

3.3	Flash Time	mS	600	550 to 650	
3.4	Pause time	Sec	4	3 to 5	

4. Transmission

4.1 Transmit Loudness Rating

Item	Descriptions	Unit	Nominal	Limit	Result
4.1.1	TOLR at 0kft loop	dB			
4.1.2	TOLR at 9kft loop	dB			
4.1.3	TOLR at 15kft loop	dB			
4.1.4	signal distortion	%		5max	
4.1.5	Transmit Frequency Response(Meet 170)	P/F	pass		

4.2 Receive Loudness Rating

4.2.1	ROLR at 0kft loop	dB			
4.2.2	ROLR at 9kft loop	dB			
4.2.3	ROLR at 15kft loop	dB			
4.2.4	signal distortion	%		5 max	
4.2.5	Receive Frequency Response(Meet 170)	P/F	pass		

4.3 Sidetone Loudness Rating

4.3.1	STLR at 0kft loop	dB	6	3 min	
4.3.2	STLR at 9kft loop	dB	6	3 min	
4.3.3	STLR at 15kft loop	dB	6	3 min	