





# APPROVAL SPECIFICATION

P/N: NDW1318-078-8A

Page: 1/9

## 1. Scope

This specification covers our product of dynamic speaker unit for mobile telephone use.

Operating temperature: -20℃--+70℃

Storage temperature: -40℃--+80℃

## 2. Mechanical layout&dimensions

Shown in Fig.7

## 3. Receiver Mode

Items	Technical Specifications
1.Frequency Range	300-3400HZ
2.DC Resistance	7.4±10% ohm
3.Impedance	8.0±10% ohm @2kHz,1V
4.Measuring Diagram	Shown in Fig.1
5.Frequency Response	Shown in Fig.2
6.Sensitivity	87±3dB @1KHZ,100MV INPUT,B&K 4153
7.Rated input power	30mw
7.Max input power	50mw
9.T.H.D	Less than 5% @1kHz,0.3V
10.Weight	Approx 1.5gram

Version	Date	Change by	ECN No:	Notes
0	04/03/2008	W.huang		Released



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Page: 2/9

## 1. Scope

This specification covers our product of dynamic speaker unit for mobile telephone use.

Operating temperature: -20°C--+70°C

Storage temperature: -40°C--+80°C

## 2. Mechanical layout&dimensions

Shown in Fig.7

## 3. Speaker Mode

Items	Technical Specifications
1.Resonance Frequency	850HZ±20%
2.Frequency range	500-10kHz
3.DC Resistance	7.4±10% ohm
4.Impedance	8.0±10% ohm @2kHz,1V
5.Measuring Diagram	Shown in Fig.4
6.Frequency Response	Shown in Fig.5
7.Sensitivity	85±3dB @(1k,1.2,1.5,2k)HZ,0.1W/0.1M
8.Rated Input power	0.6w
9.Max Input power	1.0w
10.T.H.D	Less than 10% @1kHz,0.1W/0.1M
11.Buzz sound	Should not be audible at 1.5V,sine wave between 500-5kHz
12.Weight	Approx 1.5gram

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P/N: NDW1318-078-8A

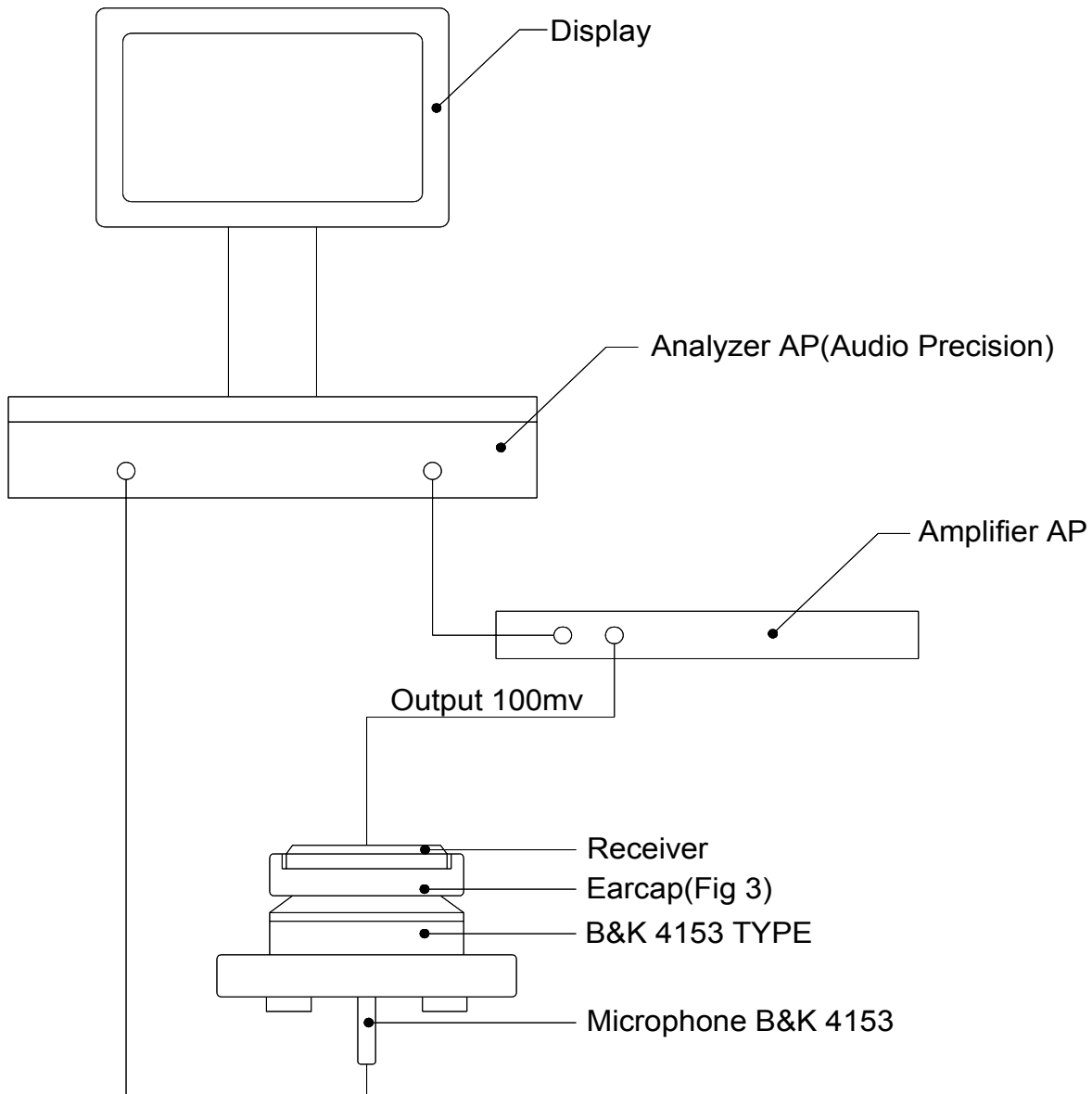
Page: 3/9

## 4. Reliability Test

Items	Technical Specifications
General	After any following tests the response at 1KHZ shall not deviate more than $\pm 3$ dB from initial value
1. Thermal Shock	+85 --40 ,45min,25cycle,starting from hot chamber Refer to:IEC68-2-14
2. High temperature/Humidity	65□,93%RH,96HRS. Reference IEC68-2-56
3. Low temperature Test	25±3□ 72HRS IEC 68-2-1
4. Salt Spray Test	35□,48hrs,5% brine,refer IEC68-2-11
5. Vibration Test	Frequency 5-20HZ,20-500HZ Vibration acceleration:0.96m <sup>2</sup> /S <sup>3</sup> .-3dB OCT Minutes per Axis(X.Y and Z-axis). 60min/axis
6. Drop Test	DUTs shall be mounted in a 115g fixture, drop samples 1.52m three times in each direction,total 18times
7. Dust Test	Test condition:Non operating,1 min on,59 min off,cycles:2 Refer to:IEC68-2-68
8. Load Test	Receiver:White noise for 96hours at 30mw input power Speaker:White noise for 96hours at 0.6w input power

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● **Frequency response measuring diagram(Receiver mode)(Fig.1)**

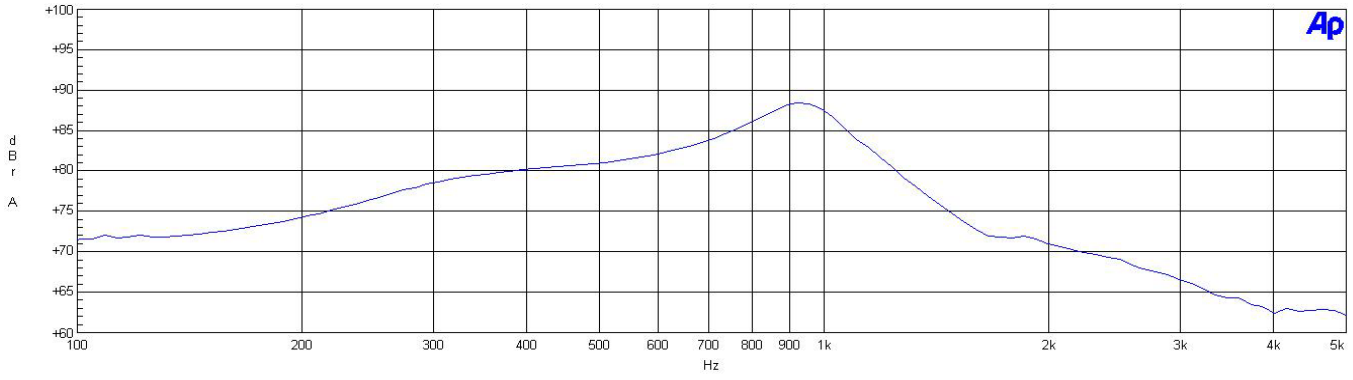


Version	Date	Change by	ECN No:	Notes
0	04/03/2008	W.huang		Released

●Frequency response (Receiver mode) (Fig.2)

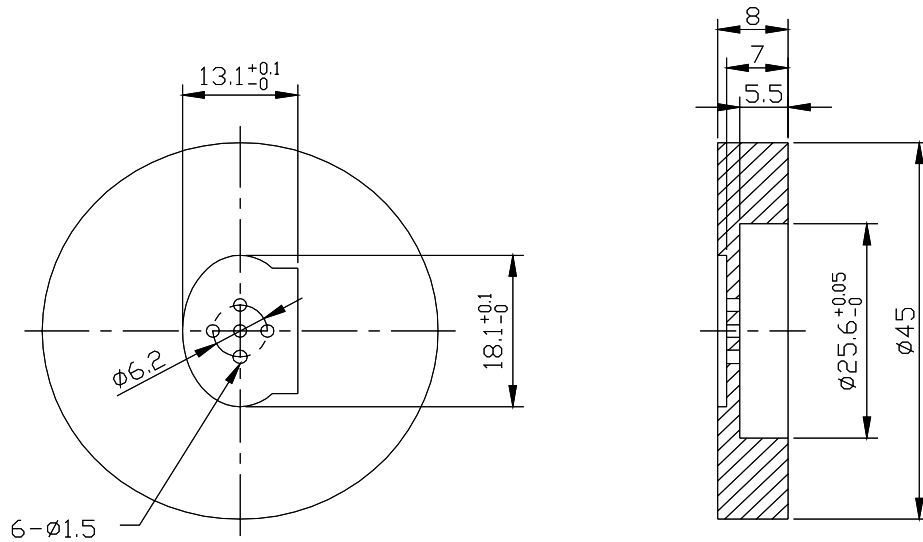
Audio Precision

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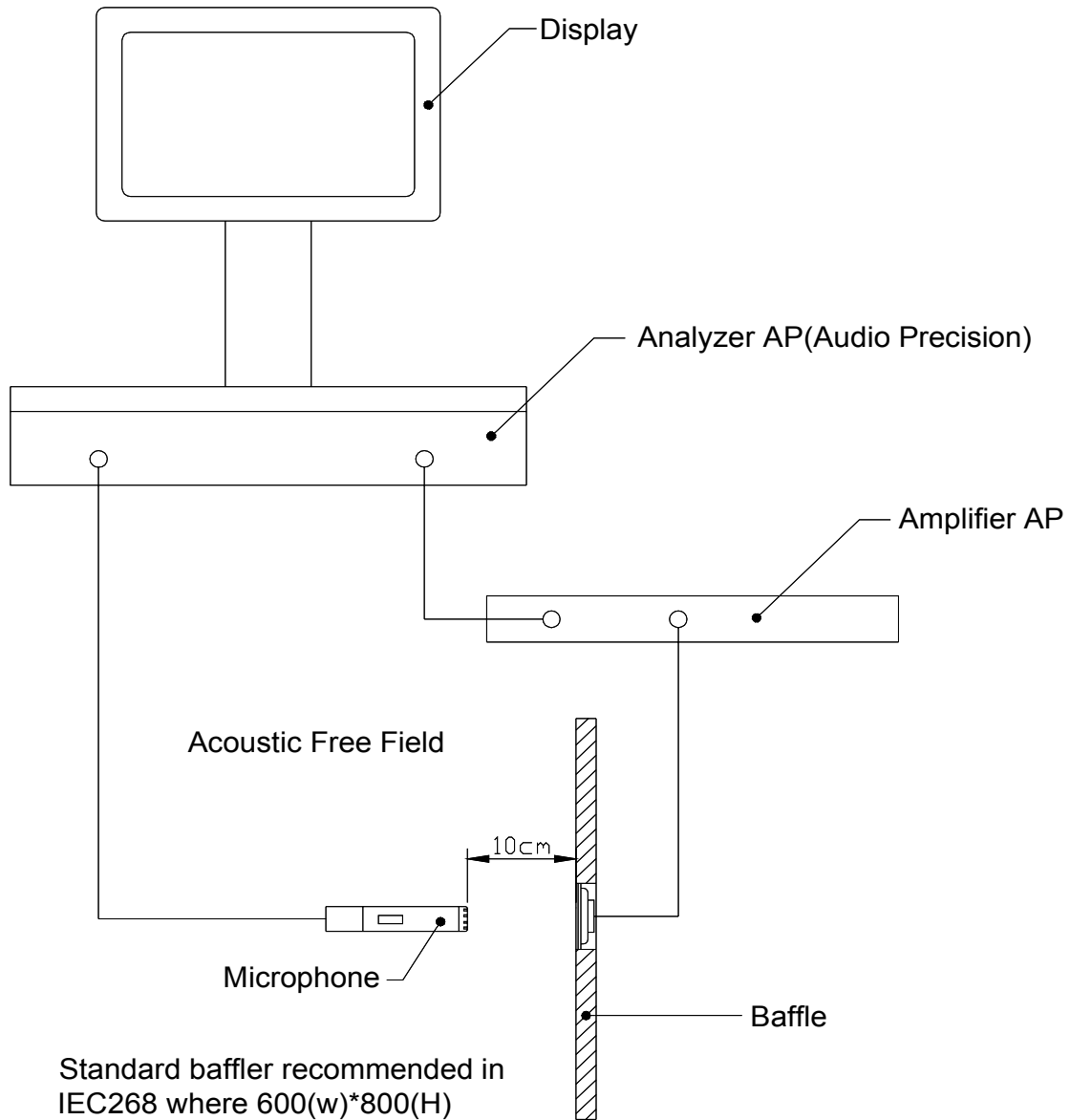
Sweep	Trace	Color	Line Style	Thick	Data	Axis	Comment
1	1	Blue	Solid	1	Anlr Ampl	Left	

●Ear Piece(Fig3)



Version	Date	Change by	ECN No:	Notes
0	04/03/2008	W.huang		Released


● **Frequency response measuring diagram(Speaker mode) (Fig.4)**

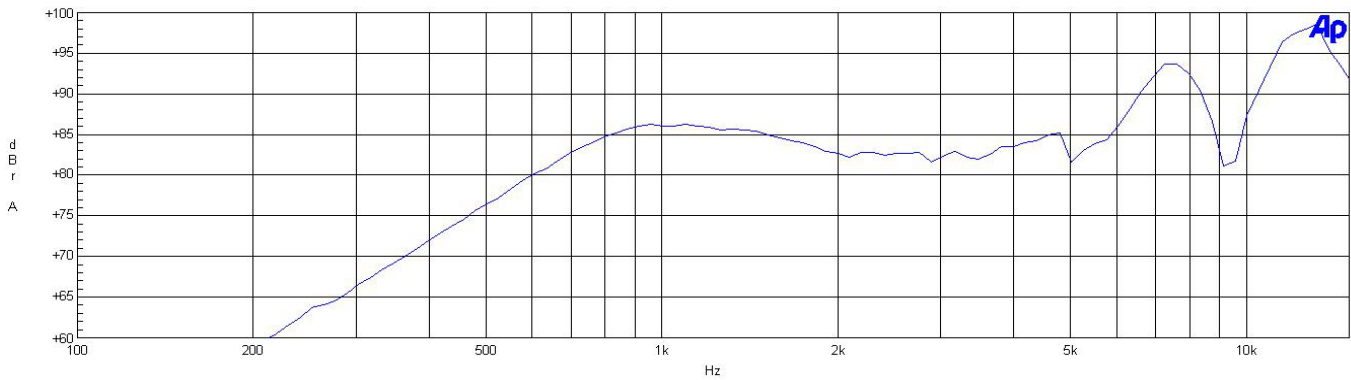


Version	Date	Change by	ECN No:	Notes
0	04/03/2008	W.huang		Released

● **Frequency response (Speaker mode) (Fig.5)**

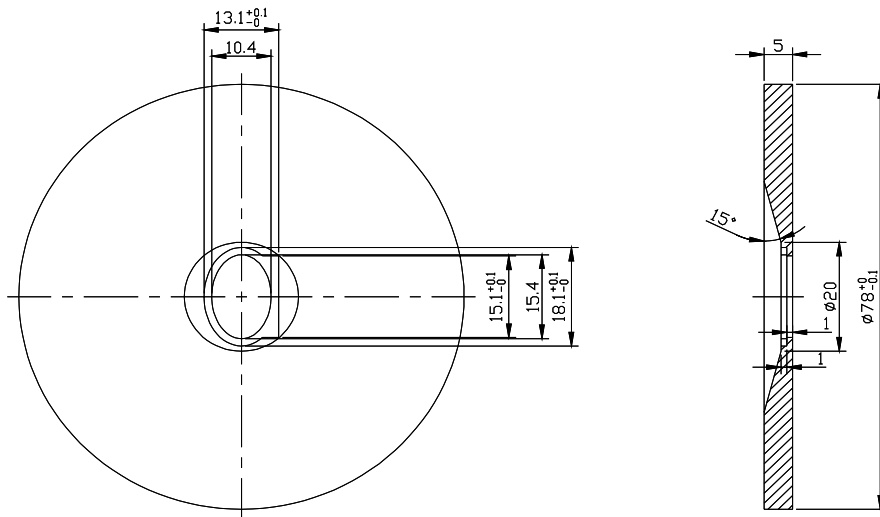
Audio Precision

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Sweep	Trace	Color	Line Style	Thick	Data	Axis	Comment
45	1	Blue	Solid	1	Anlr.Ampl	Left	

● **Ear Piece (Fig.6)**

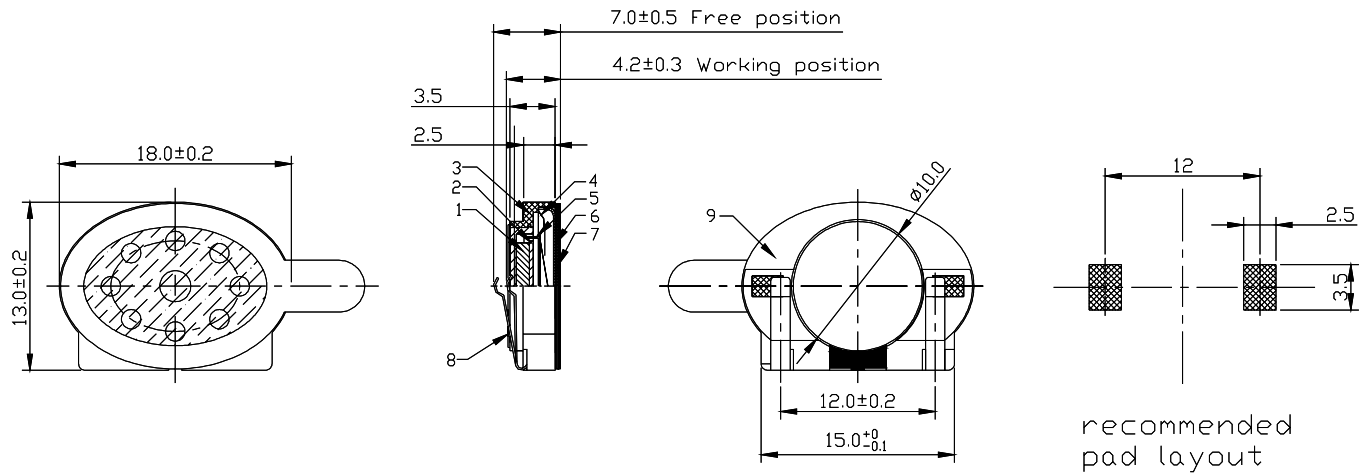


Version	Date	Change by	ECN No:
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## 5.Shape Drawing (Fig.7)

Note:General unless otherwise noted:±0.2



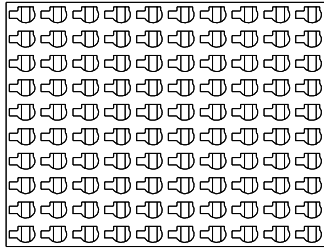
## Bill of Material

ITEM	DESCRIPTIONS	SPEC	QTY	REMARK
1	Magnet	$\phi 6.8 \times 1.0T$	1	Nd-Fe-B
2	Top plate	$\phi 7.0 \times 0.3$	1	SPC
3	Frame	13*18*3.5H	1	ABS757
4	Diaphragm	12.2*17.2*0.7H	1	PEN 0.02T
5	Voice Coil	$\phi 7.8$ 8ohm	1	Copper
6	Cover	12.2*17.2*1.3H	1	Stainless
7	Dust Screen	12.2*17.2*0.4t	1	Non-Woven
8	Gasket	$\phi 9.5 \times 0.1H$	1	PE
9	Mesh	0.1T	1	Spun Silk

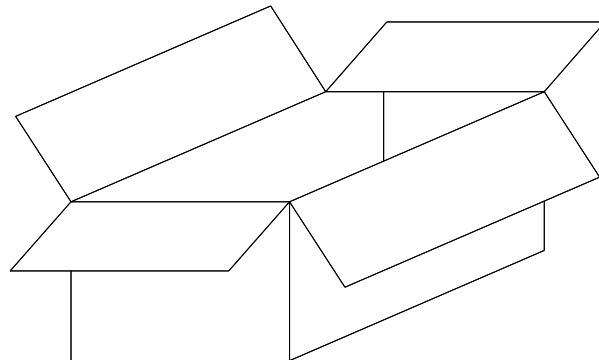
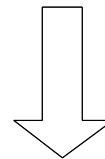
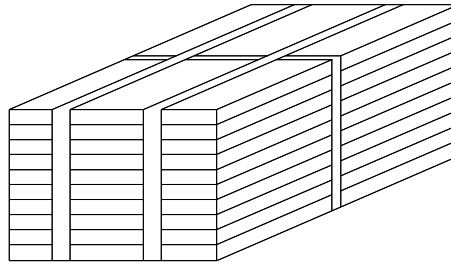
Version	Date	Change by	ECN No:
0	04/03/2008	W.huang	
1	05/09/2008	W.huang	

Notes  
Released  
shape changed

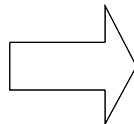

## 6.Packing Details(Fig.8)



Drawing of Tray



Aurasound. Inc		RDHS	
		U/L	
RDHS safety	YES <input type="checkbox"/> NO <input type="checkbox"/>	FOC	QC



Notes:

1.100pcs of speaker in each tray,

2.40 tray in one carton,

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# APPROVAL SPECIFICATION

P/N: NDW1318-078-8A

Page: 8/9

## 7. On line testing.

Item	Equipmend	Standard	Frequency
<b>Speaker mode</b>			
FR	NTI or listen	300-5kHz, □Based on gold sample □±3dB	100%
SPL	NTI or listen	At 1k, 1.2k, 1.5k, 2k. Based on gold sample ±3dB	100%
F0	NTI or listen	□Based on gold sample □±20%HZ	100%
Rub&Buzz	NTI	Based on gold sample	100%
Impedance	NTI or listen	8ohm±15% at 2kHz, 1V	100%
THD	NTI or listen	<10% at 1KHZ. 0.1M/0.1W INPUT	100%
<b>Receiver mode</b>			
SPL	Listen	300-3400, □Based on gold sample □±3dB	100%
THD	Listen	<5% at 1KHZ. 0.3V INPUT	100%

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## Version History

NO.	Date	Page No.	Remark	ECN.NO.
0	04/03/2007		First release	
1	05/09/2008		shape changed	

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0	04/03/2008	W.huang		Released