



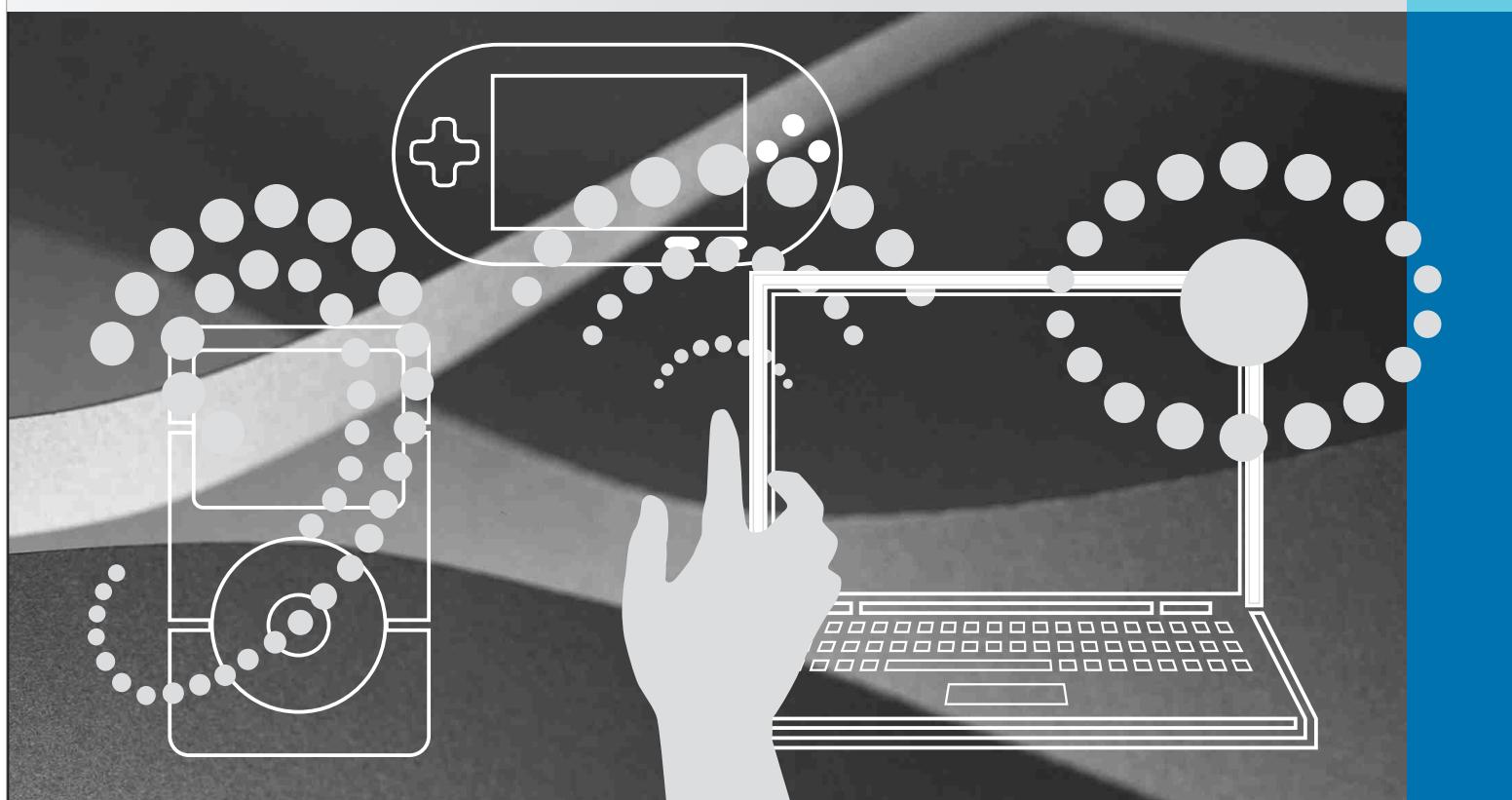
AAC Acoustic Technologies Holdings Inc.

www.aacacoustic.com

Dynamic Miniature Speaker
Ceramic Speaker
Speaker Module
Multi-Function Device
Miniature Receiver
Microphone
Haptics/Vibrator
Transducer
Ceramic Products

2010-2011

Product Catalog





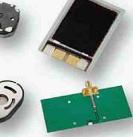
AAC Product Catalog 2010-2011

INTRODUCTION

of AAC ACOUSTIC TECHNOLOGIES HOLDINGS INC.

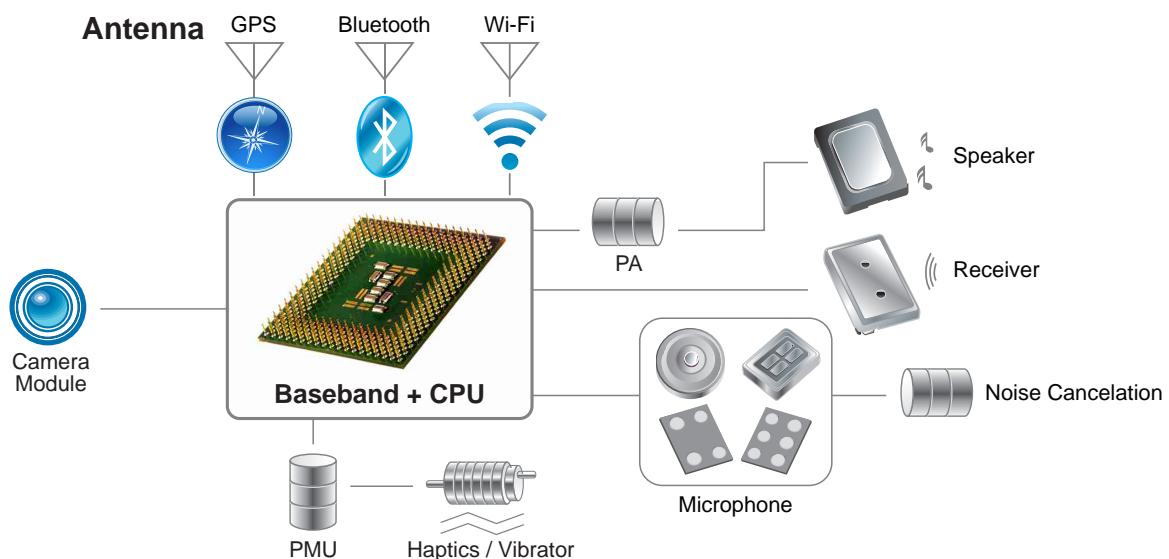
AAC Acoustic Technologies Holdings Inc. (HKSE:2018) is one of the world's leading miniature acoustic solution provider specialize in design, manufacture and distribution of receivers, speakers, speaker modules, multi-function devices, microphones, transducers and headsets used in a wide range of mobile handsets, notebook computers, game consoles, automobiles, LCD/LED TVs and many other consumer electronics devices. Headquartered in Shenzhen China, the company has approximately 13,000 employees with sales and R&D offices around the globe, serving key direct customers include Nokia, Motorola, Sony-Ericsson, Samsung, LG, RIM, HTC etc.

Please turn over this catalogue to learn more about AAC products and solutions, For more information about AAC Acoustic Technologies Holding Inc, please visit : <http://www.aacacoustic.com>

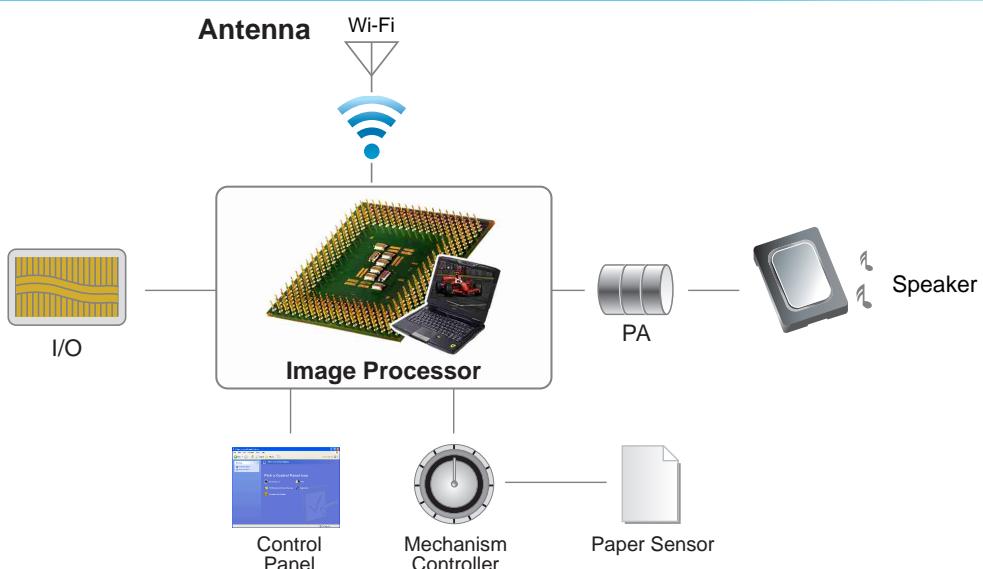
MOBILE	ELECTRONICS	PORTABLE MEDIA	APPLIANCES	AUTOMOTIVE	NAVIGATION
 Mobile Phone Speakers (Voice Coil & Ceramic) Receivers (Voice Coil) Microphones (ECM & MEMS) Speaker Boxes w/Antenna Antenna (FPC & Ceramic) LC Filters (Ceramic) Wireless Substrate (Ceramic) Vibrators (Linear & Pancake) Haptic Vib. (Ceramic) Camera Module Auto-Focus Mech Zoom Mech LED Substrate (Ceramic) Wafer Lens Transducers 	 Notebook PC Speakers (Voice Coil & Ceramic) Receivers (Voice Coil) Microphones (ECM & MEMS) Speaker Boxes w/Antenna Vibrators (Linear & Pancake) Haptic Vib. (Ceramic) Camera Module Auto-Focus Mech Zoom Mech LED Substrate (Ceramic) Wafer Lens Transducers 	 MP3 Player Speakers (Voice Coil & Ceramic) Receivers (Voice Coil) Microphones (ECM & MEMS) Speaker Boxes w/Antenna Antenna (FPC & Ceramic) LC Filters (Ceramic) Wireless Substrate (Ceramic) Linear Vibrators Pancake Vibrators Haptic Vibrators (Ceramic) 	 Home Appliances Speakers (Voice Coil & Ceramic) Receivers (Voice Coil) Microphones (ECM & MEMS) Speaker Boxes w/Antenna Antenna (FPC & Ceramic) LC Filters (Ceramic) Wireless Substrate (Ceramic) Linear Vibrators Pancake Vibrators Haptic Vibrators (Ceramic) 	 Car Audio System Speakers (Voice Coil & Ceramic) Receivers (Voice Coil) Microphones (ECM & MEMS) Speaker Boxes w/Antenna 	 GPS Speakers (Voice Coil & Ceramic) Receivers (Voice Coil) Microphones (ECM & MEMS) Speaker Boxes w/Antenna 
 					

Solution

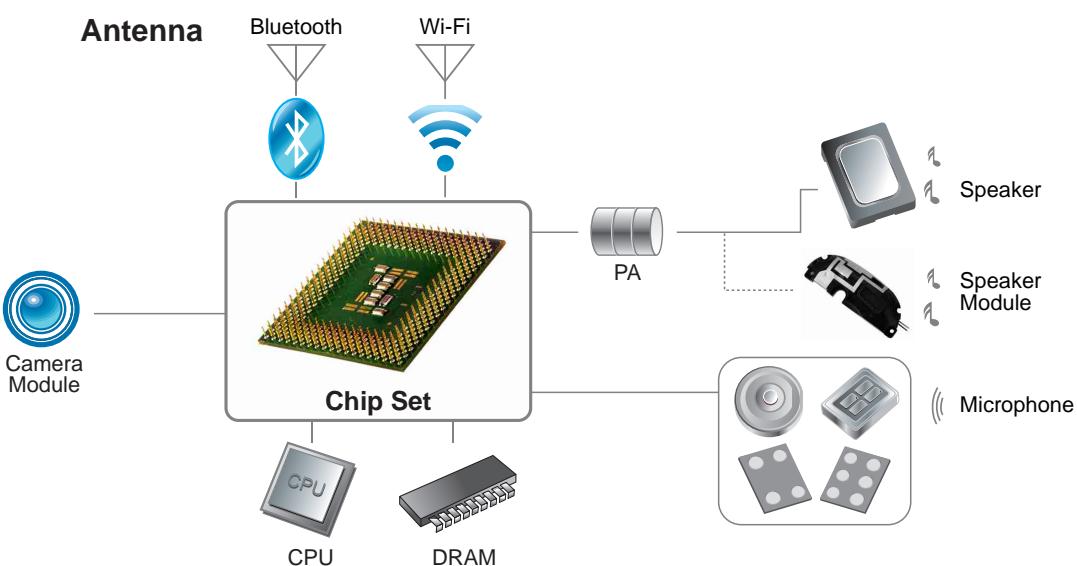
Mobile Phone Solution



E-Book / Tablet PC Solution

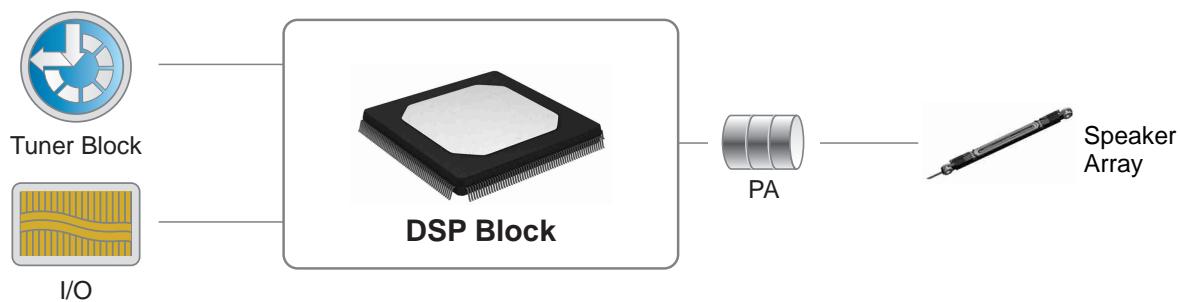


Notebook Solution



Solution

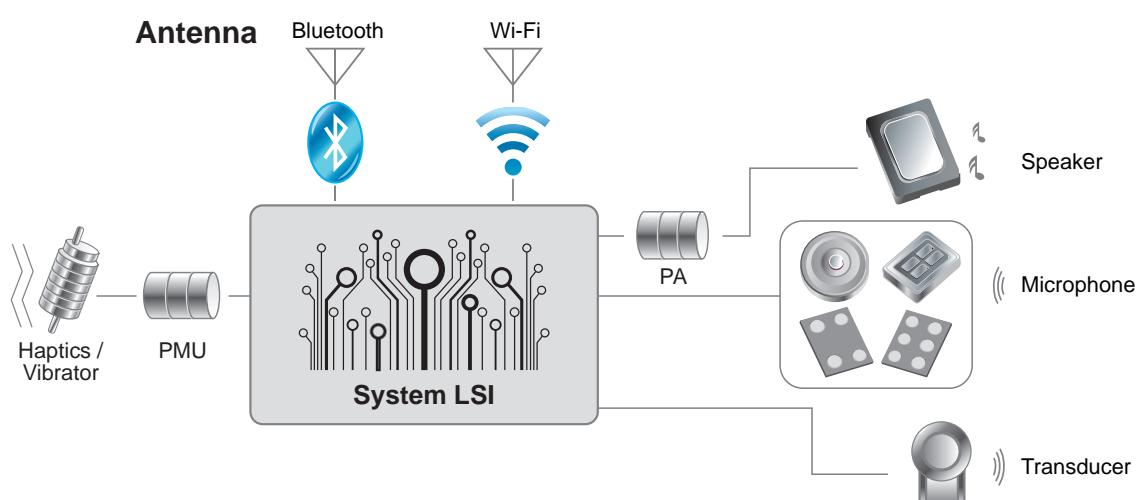
LED TV Solution



Automotives Solution

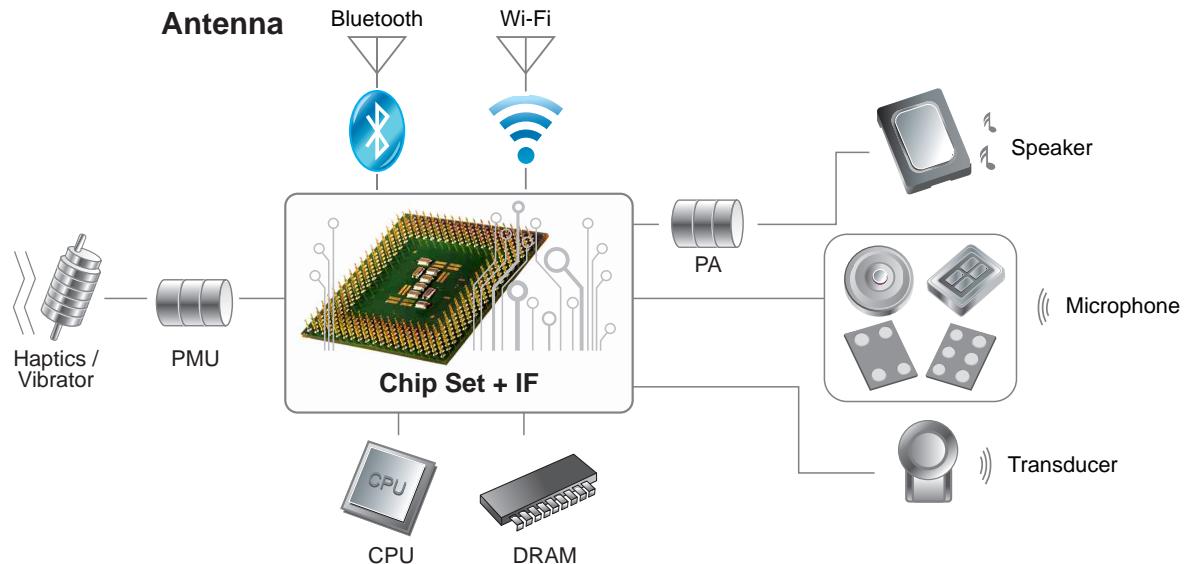


Digital Camera Solution

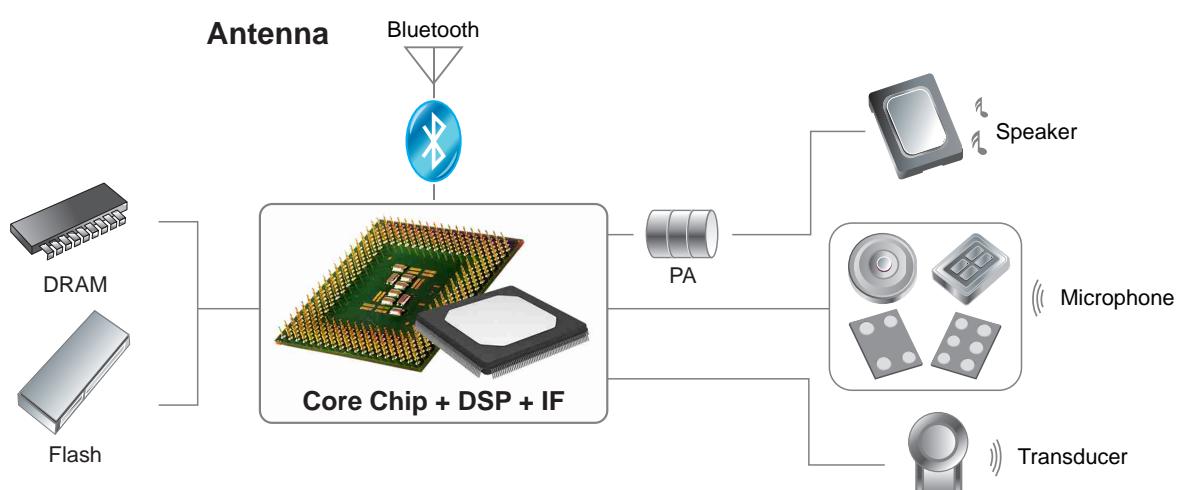


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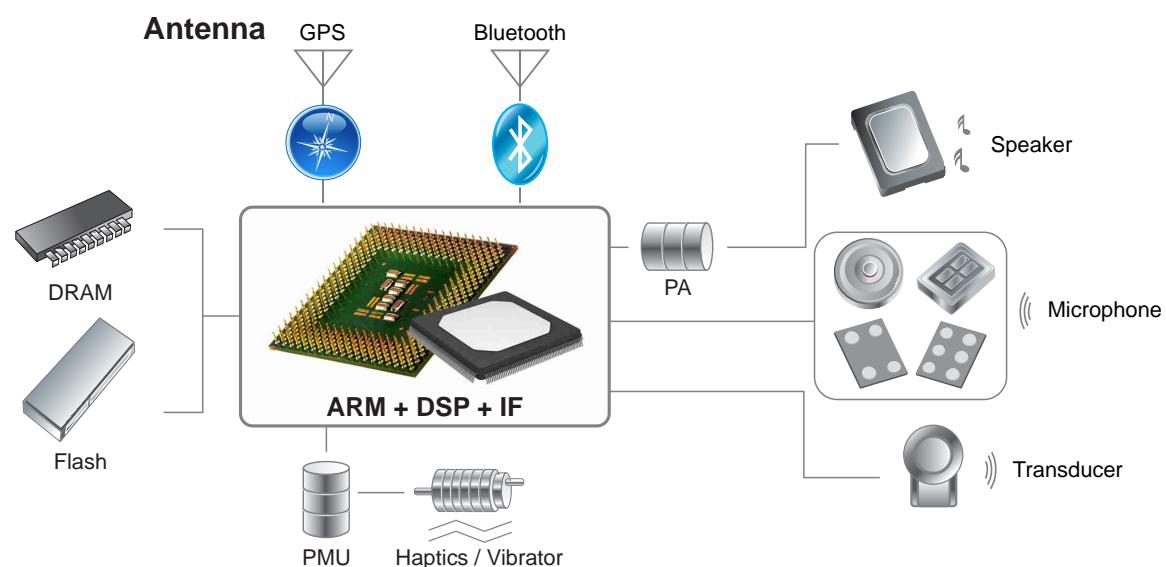
Game Solution



Media Player Solution



Navigation Device Solution



Contents

Dynamic Miniature Speaker

Model	Speaker for LED TV	Speaker for Notebook	Speaker Module	MFD	Low fs Miniature Speaker	Miniature Speaker	Ceramic Speaker	Page
DMSP0913AJ-10-G					P			11
DMSP0928A-02-G						P		11
DMSP1115KJ-05-G					P			12
DMSP1115MJ-01-G					P			12
DMSP1318H-01-G					P			13
DMSP1420DJ-01-G						P		13
DMSP1420H-06-G (Thick 2.5mm)						P		14
DMSP1420I-05-G (Thick 2.5mm)						P		14
DMSP1420KJ-01-G					P			15
DMSP1625HJ-01-G					P			15
DSS1225B		P						16
DSS1425K		P						16
DSS1430C		P						17
DSS2440A		P						17
DMSP1115ASS-K-01			P					18
DSS14125A-01X-G	P							19
DSS1590A-02X-G	P							19
DMST1318ASM-01-G			P					20

Multi-Function Device

Model	Speaker for LED TV	Speaker for Notebook	Speaker Module	MFD	Low fs Miniature Speaker	Miniature Speaker	Ceramic Speaker	Page
MSRV1420A-01-G				P				23
MSRV1608D-S-03-G				P				23
MSRV1808D-01-G				P				24
MSRV2008H-01-G				P				24

Miniature Receiver

Model	Miniature Receiver	Ultra Slim Receiver	Wideband Receiver	Receiver for HAC Fuction System	Receiver for Active Noise Cancellation System	Receiver for Waterproof System	Page
SDRP0510HJ03		P	P			P	27
SDRP0612HJ03	P						27
SDRP0615PJ01-G	P						28
SDRP0615NJ04-G		P					28
SDRP0711NJ01		P					29
SDRP0812CJ06			P	P	P		29
SDRP0815FJ02			P	P	P		30
SDRP0815HJ01		P	P	P			30

Contents

Microphone								
Model	ECM Microphone	SMD Microphone	SMD Digital Microphone	MEMS Microphone	Digital MEMS Microphone	Unidirectional Microphone	Microphone for Waterproof System	Page
ACMG3015-05S	✓							33
ACMG4010-05S		✓						33
ACMG4013-05S		✓						34
ADMG4310-263			✓					34
SM0102B-383-M02		✓		✓			✓	35
SDM0301-263-M01					✓			35
SDM0401B-263-M02						✓		36
SM0401BL-F383-M01				✓				36
SM0401L-F423-M01				✓				37

Model	Haptics/Z Direction Linear Vibrator				Haptics/X Direction Linear Vibrator				Page
ELV0630A					✓	41			
ELV1036A	✓				✓	41			
ELV1045AS	✓					42			
ELV-1411A					✓	42			

Model	SMD Piezoelectric Audio Transducer		SMD Electromagnetic Transducer						Page	
DET301-G			✓						45	
DET402-G-1			✓						45	
MPT11-G	✓								46	
MPT12B-G	✓								46	
MPT13-G	✓								47	
MPT16C-G	✓								47	
Model	Ceramic Speaker		Ceramic Antenna		Ceramic Filter		Ceramic Actuator		Piezo Disc	Page
PSF1913D-01	✓									51
PSF2115A-01-F1	✓									51
ML2503-G					✓					52
ML5306-G							✓			52
MLB3503-G							✓			53
FT-35G-32B1			✓						✓	53
AT(2J)X05311NX					✓					54
BF24A4R218D8										54

Dynamic Miniature Speaker

P. 11-20

Dynamic Miniature Speaker usually is applied in Multimedia such as laptop, Mobile phone, MP3/MP4, PND etc. As we use cloth diaphragm and voice coil with former, our speaker enable to get higher rated power, lower resonance frequency and better sound quality.

A dynamic small speaker comprises of a diaphragm, voice coil, magnet and frame. It is available in rectangle, round, oval shapes. Some of the speakers use cloth diaphragm and voice coil. This enables the speaker to achieve high rated power with lower resonance frequency and better sound quality. The main parameters describes a speaker's performance including impedance at 2 kHz, rated input power, maximum input power, bass resonance frequency, sensitivity at a certain frequency range and the THD(Total Harmonic Distortion).

Applications: Mobile phones, PNDs, Laptops, MP3/MP4.
Automotives

Dynamic Miniature Speaker Naming

Model numbers of AAC Acoustic Technologies Holdings Inc.- speakers and receivers consist of the following fields:

Product Category + Characteristic + External Diameter + Version Number + Impedance + Contact Method + Performance Serial + Gasket Position + Green Product

Product Category

- Polyphonic Speaker series : DMS
- Miniature Receiver series : SDR

External Diameter

- In mm

Version Number

- Version Number assigned along product development process

Impedance

- In

Contact Method

- PCB - (Omitted)
- Pin Contact - P
- Spring Contact - J
- Wired - W
- Coil Spring Contact - S
- FPC - F
- Wire with connector - C

Performance Serial

- Digit showing number of times an internal component has been changed that cause changes in performance

Gasket Position

- F - Gasket in the front
- B - Gasket at the back

Green Product

- G - Abbreviation of green product

Characteristics

Circular	-
Elliptical	T
Race Track-Shaped	P
Small	W
High Frequency	G
Middle Frequency	Z
Low Frequency	D
Wide Bandwidth	-
Stereo	L
For Automobiles	I
Green Product	G

Example : DSS 1235 C

Version Number

External Dimension
(Width and Length)

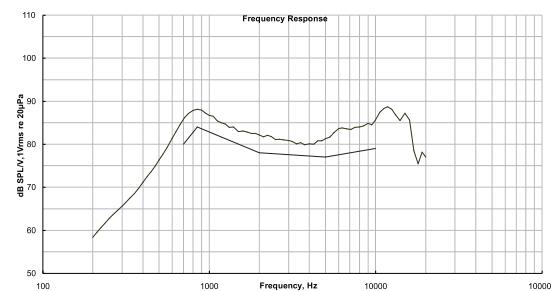
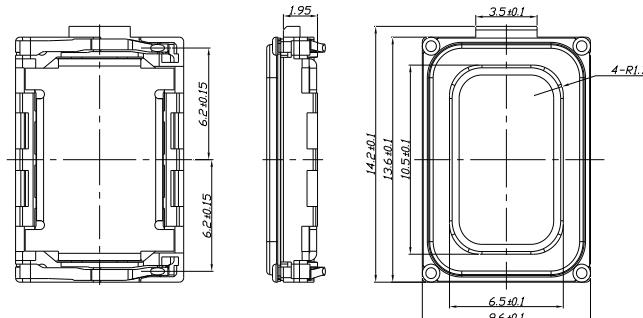
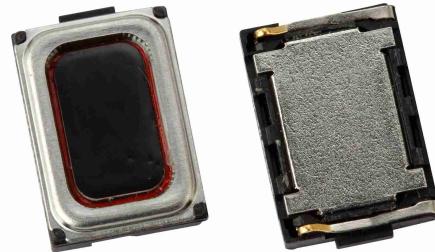
Dynamic Miniature Speaker



DMSP0913AJ-10-G

Weight : 1.1g

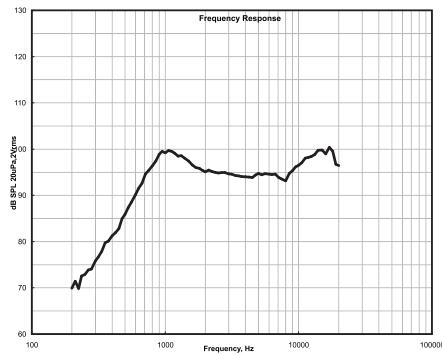
Size(mm):	9.6 x 13.6 x 2.9mm
Rated Input Power:	0.3W
Maximum Input Power:	0.8W
Bass Resonance Frequency:	500±100Hz
Sound Pressure Level:	82±2dB at 2000Hz@1Vrms/10cm <15% 700Hz ; <8% 1000Hz <4% 3000Hz-10000Hz@ 1Vrms input
THD:	<20°C to +70°C -40°C to +85°C
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +85°C



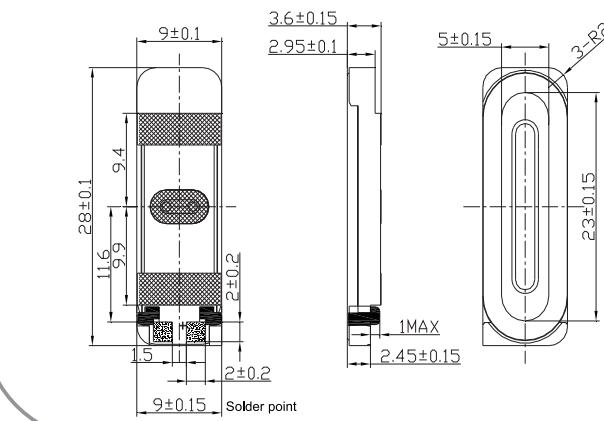
Unit: mm

DMSP0928A-02-G

Weight : 2±0.3g



Size(mm):	9 x 28 x 3.6mm
Rated Input Power:	0.5W
Maximum Input Power:	1W
Bass Resonance Frequency:	800±150Hz
Sound Pressure Level:	100.5±3dB at 2000Hz@2V/5cm <15% 800Hz~1200Hz; <10% 1200Hz~5000Hz
THD:	<20°C to +70°C -40°C to +85°C
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +85°C



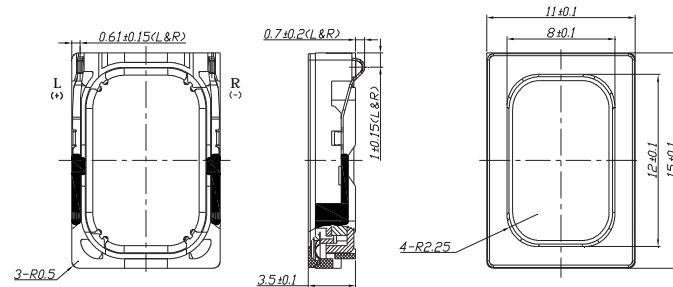
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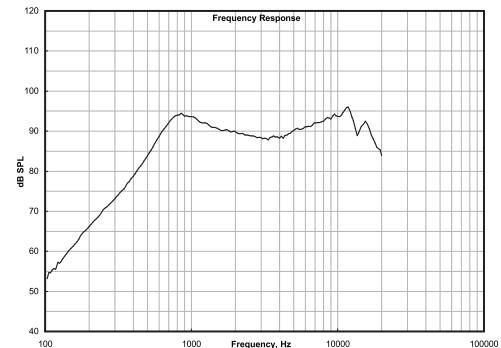
DMSP1115KJ-05-G

Weight : 1.6±0.3g

Size(mm):	11 x 15 x 3.5mm
Rated Input Power:	0.5W
Maximum Input Power:	1W
Bass Resonance Frequency:	500Hz±10% in free air
Sound Pressure Level:	84±3dB at 2000Hz in 1cc box@ 1V/10cm
THD:	300Hz<25% ; 500Hz~750Hz<18% 1500Hz<5% ; 2000Hz~15000Hz<3%
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +85°C

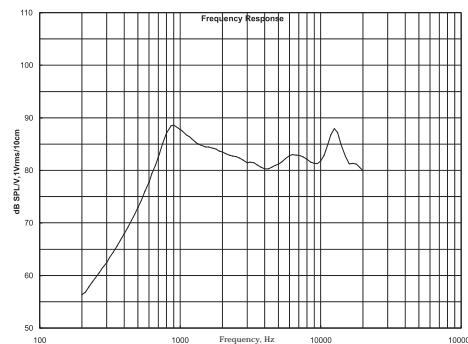
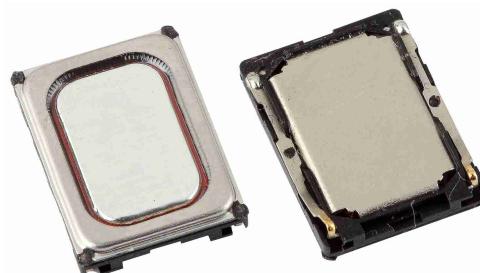


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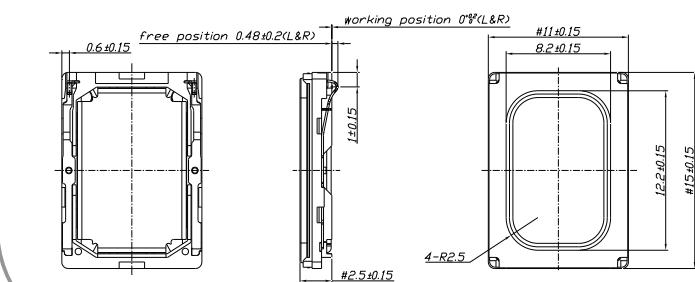


DMSP1115MJ-01-G

Weight : 1.3mg



Size(mm):	11 x 15 x 2.5mm
Rated Input Power:	0.4W
Maximum Input Power:	0.8W
Bass Resonance Frequency:	500±15%Hz
Sound Pressure Level:	83±2dB at 2000Hz @ 1Vrms/10cm <15% 500Hz-800Hz ; <5% 1500Hz-15000Hz @ 1Vrms input
THD:	
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +85°C



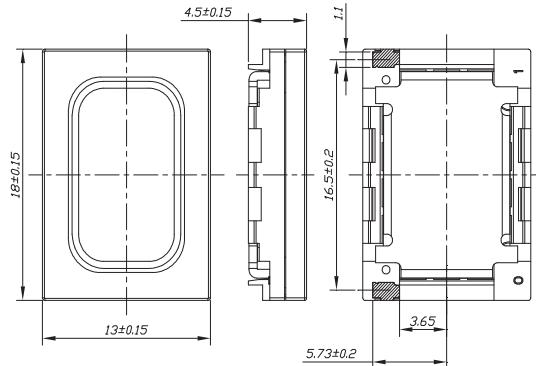
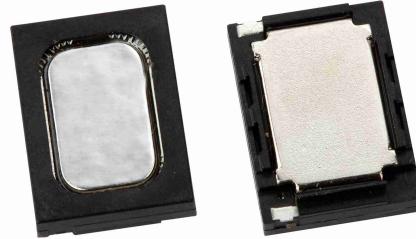
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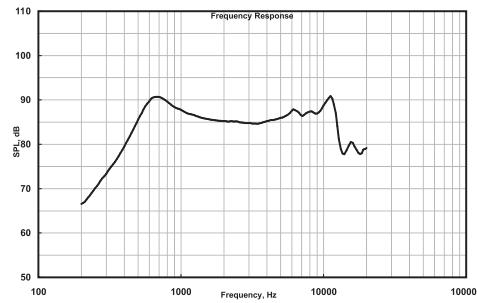
DMSP1318H-01-G

Weight : 2.8 ± 0.3 g

Size(mm):	$13 \times 18 \times 4.5$ mm
Rated Input Power:	0.7W in 1cc box
Maximum Input Power:	1.0W in 2cc box
Bass Resonance Frequency:	250 ± 50 Hz in free air 650 ± 70 Hz in 1cc box
Sound Pressure Level:	85 ± 3 dB at 2kHz in 1cc box@ 1Vrms/10cm
THD:	<15% 300Hz~700Hz; <5% 1400Hz~10000Hz in 1cc box@ 1Vrms input
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +85°C

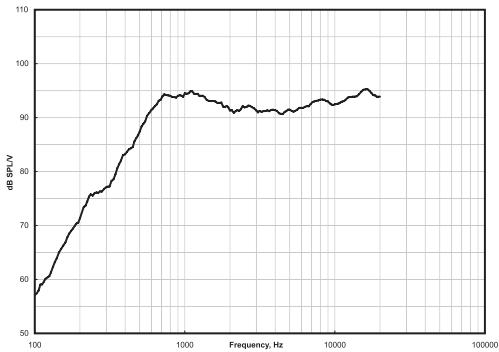


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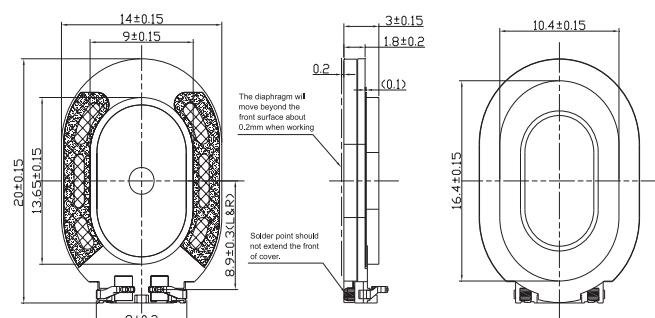


DMSP1420DJ-01-G

Weight : 1.3g



Size(mm):	$14 \times 20 \times 3$ mm
Rated Input Power:	0.5W
Maximum Input Power:	1.0W
Bass Resonance Frequency:	$800 \pm 20\%$
Sound Pressure Level:	92.5 ± 3 dB at 2000Hz@ 2.0Vrms/10cm
THD:	<15% 800Hz~5000Hz@ 2.0Vrms input
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +85°C



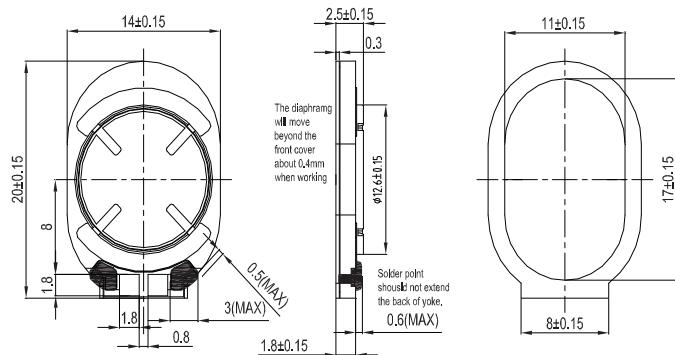
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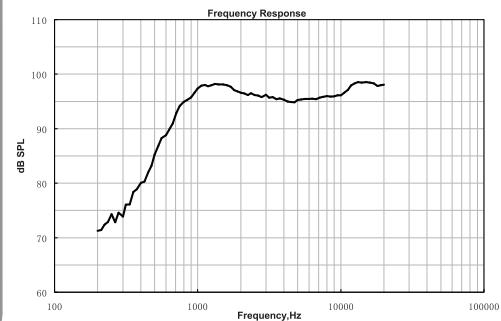
DMSP1420H-06-G

Weight : 1.3g

Size(mm):	14 x 20 x 2.5mm
Rated Input Power:	0.5W
Maximum Input Power:	1W
Bass Resonance Frequency:	850±20%
Sound Pressure Level:	94.5±3dB at 3000Hz@2Vrms/10cm <15% 850Hz-4500Hz@2Vrms input
THD:	<20°C to +70°C
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-30°C to +85°C



Unit: mm

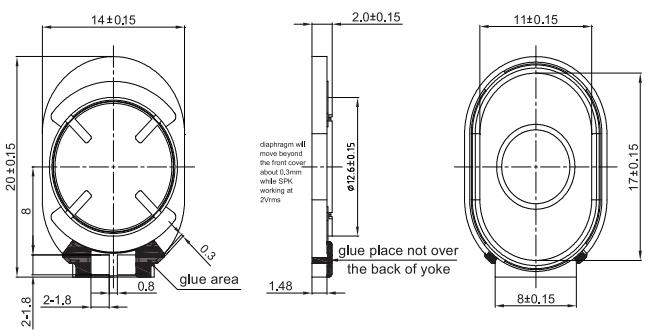
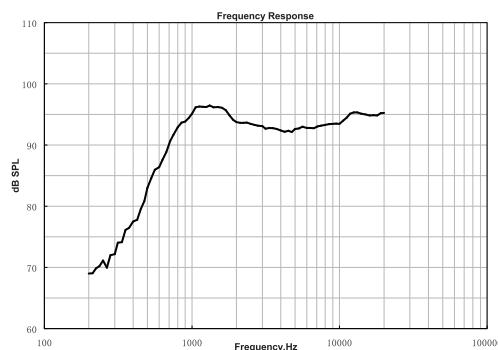


DMSP1420I-05-G

Weight : 1.0g



Size(mm):	14 x 20 x 2mm
Rated Input Power:	0.5W
Maximum Input Power:	1.0W
Bass Resonance Frequency:	850±20% in free air
Sound Pressure Level:	93±3dB at 3000Hz@2Vrms /10cm
THD:	<15% 800Hz~5000Hz@2Vrms/10cm
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-30°C to +85°C



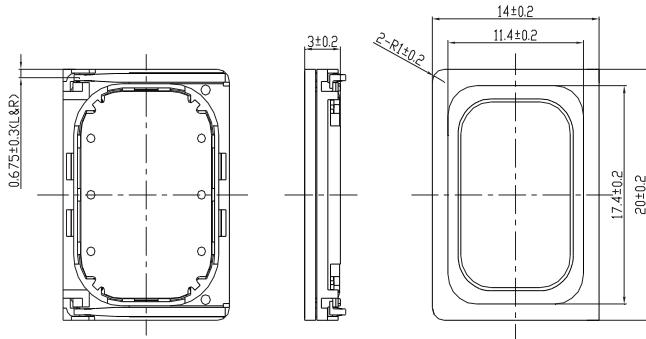
Unit: mm



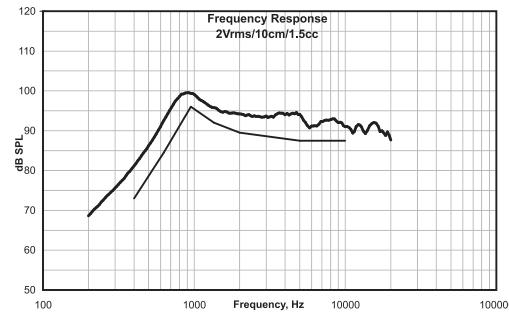
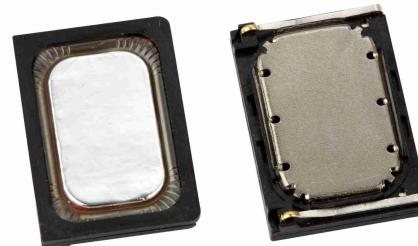
DMSP1420KJ-01-G

Weight : 2.4±0.3g

Size(mm):	14 x 20 x 3mm
Rated Input Power:	0.7W
Maximum Input Power :	1.0W
Bass Resonance Frequency:	350Hz±15% in free air 850Hz±15% in 1.5cc box
Sound Pressure Level:	93.5±2.5dB (2000Hz~5000Hz average SPL) @2.37Vrms/10cm
THD:	<15% 400Hz; <10% 630Hz; <5% 1000Hz <3% 1200Hz; <2% 5000Hz-10000Hz
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +85°C

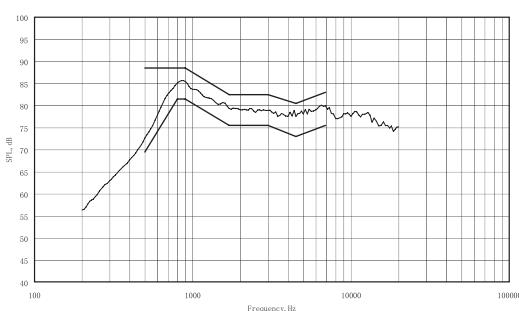
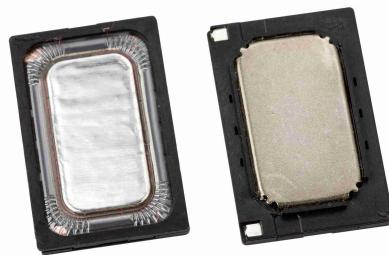


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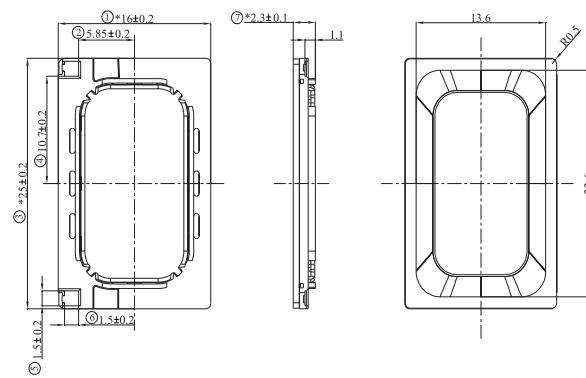


DMSP1625HJ-01-G

Weight : 2.2g



Size(mm):	16 x 25 x 2.3mm
Rated Input Power:	0.5W
Maximum Input Power:	1W
Bass Resonance Frequency:	750±150Hz in 2cc box
Sound Pressure Level:	83±3dB@ 1000Hz in 2cc box @0.5w/30cm
THD:	<10% at 1000Hz in 2cc box@ 0.5w input
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +85°C



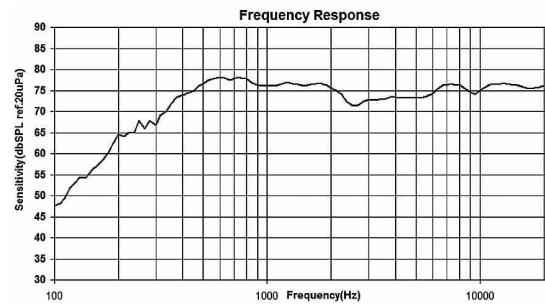
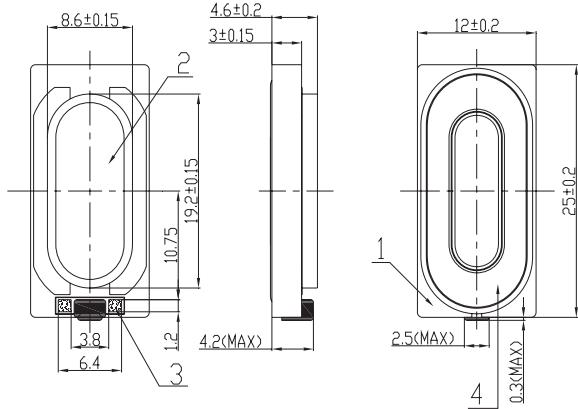
Unit: mm



DSS1225B

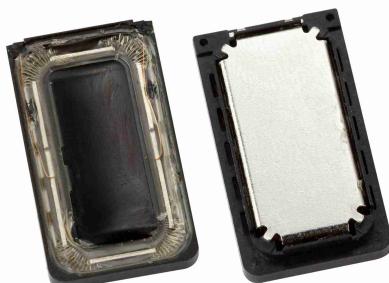
Weight : 2.8g

Size(mm): 12 x 25 x 4.6mm
 Impedance: 4±15% ohms@1000Hz, 1Vrms input
 Rated Input Power: 1.5W
 Maximum Input Power: 2W
 Resonance Frequency: 400±140Hz
 Sensitivity: 76±3dB (1W 0.5m average at 800, 1000, 1200, 1500Hz)
 THD: <15% (1kHz)@ 1W
 Operating Temperature Range: -20°C to +70°C
 Storage Temperature Range: -40°C to +85°C

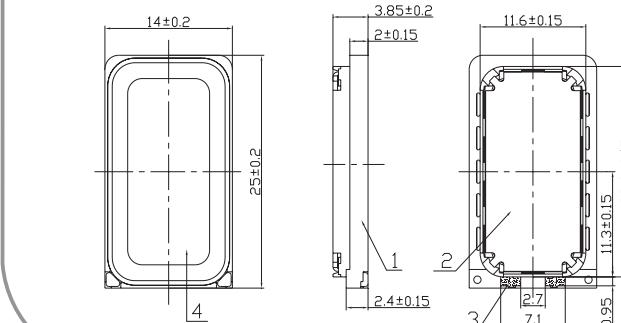
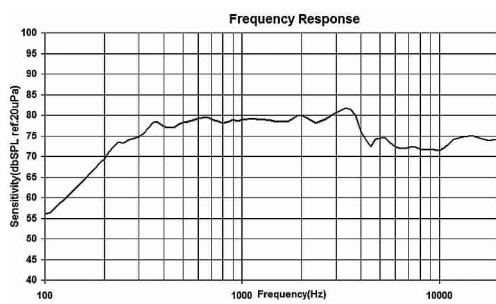


DSS1425K

Weight : 3.7g



Size(mm): 14 x 25 x 3.85mm
 Impedance: 4±15% ohms@1000Hz, 1Vrms input
 Rated Input Power: 1W
 Maximum Input Power: 1.5W
 Resonance Frequency: 300±100Hz
 Sensitivity: 81±3dB (1W 0.5m average at 800, 1000, 1200, 1500Hz)
 THD: <15% (1000Hz)@ 1W
 Operating Temperature Range: -20°C to +70°C
 Storage Temperature Range: -40°C to +85°C



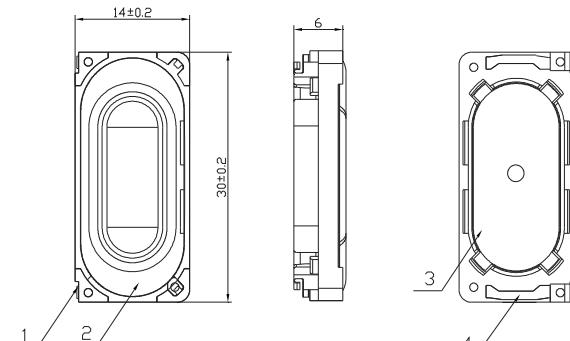
Unit: mm



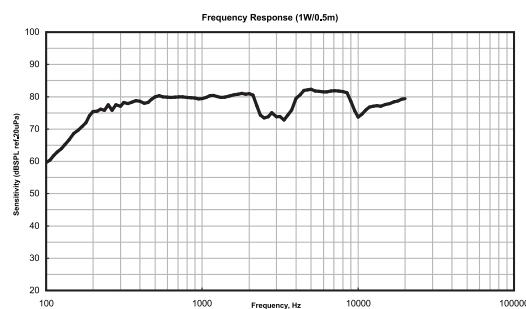
DSS1430C

Weight : 5.9g

Size(mm):	14 x 30 x 6mm
Impedance:	8±15% ohms@ 1000Hz, 1Vrms input
Rated Input Power:	2W
Maximum Input Power:	3W
Resonance Frequency:	300±60Hz
Sensitivity:	78±3dB (1W 0.5m average at 800, 1000, 1200, 1500Hz)
THD:	<5% (1000-3000Hz)@ 1W
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +85°C

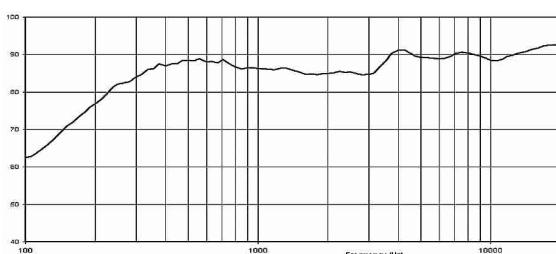


Unit: mm

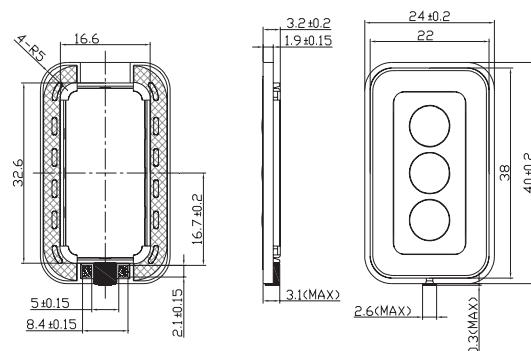


DSS2440A

Weight : 7.6±0.5g



Size(mm):	24 x 40 x 3.2mm
Impedance:	8±15% ohms@ 1000Hz, 1Vrms input
Rated Input Power:	1.5W
Maximum Input Power:	2W
Bass Resonance Frequency:	320±70Hz
Sound Pressure Level:	81±3dB@ 0.5W / 50cm average at 800, 1000, 1200, 1500Hz
THD:	<5% 1000Hz, 1W
Operating Temperature Range:	20°C to +70°C
Storage Temperature Range:	-40°C to +85°C



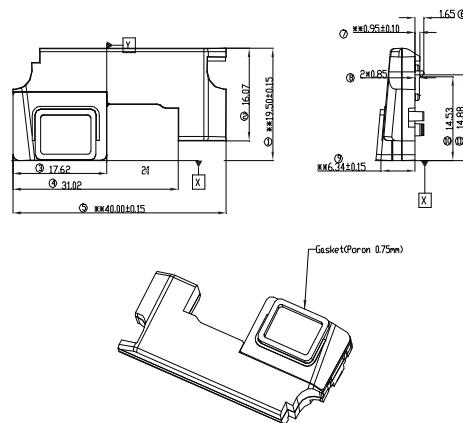
Unit: mm



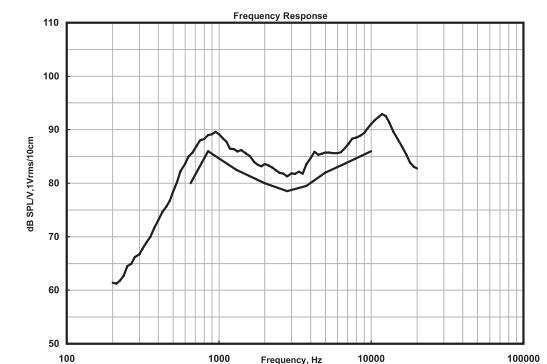
DMSP1115ASS-K-01

Weight : 3.5g

Size(mm):	40 x 19.5 x 6.34mm
Rated Input Power:	0.5W
Maximum Input Power:	1W
Bass Resonance Frequency:	800Hz
Sound Pressure Level:	84dB at 2000Hz / 1Vrms / 10cm
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +85°C



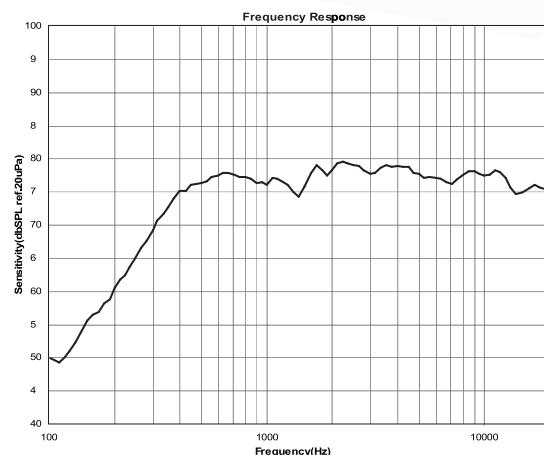
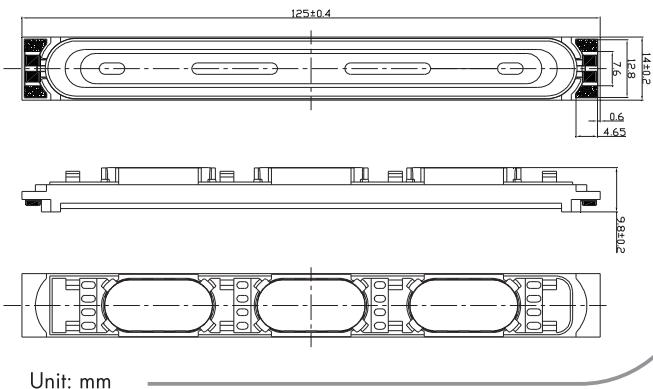
Unit: mm



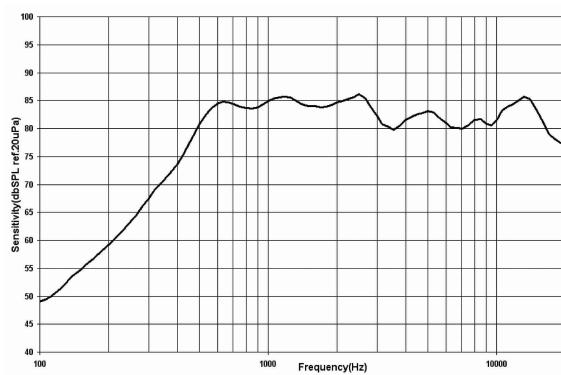


DSS14125A-01X-G

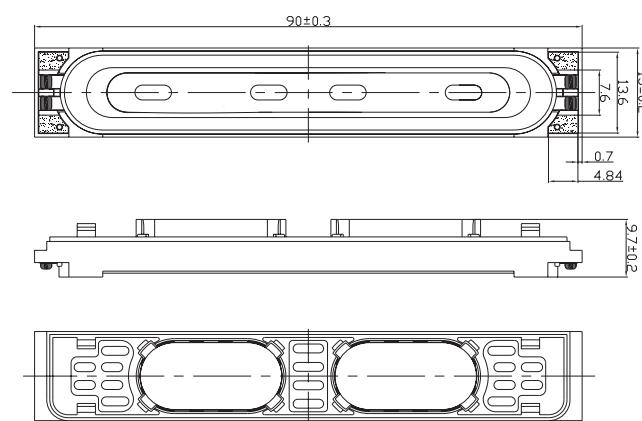
Impedance:	$8\pm15\%$ ohms@ 1kHz, 1Vrms input
Rated Noise Power:	10W
Short Term Maximum Power:	20W
Sound Pressure Level:	78 ± 3 dB ref.20uPa@ 2.83Vrms, 1m Average at 1000, 2000, 3000, 4000Hz
Frequency of -6dB (referenced to SPL):	350 ± 50 Hz
Rated Frequency Range	100Hz~20000Hz
Frequency Response:	<10%@ 2.83Vrms, 300~20kHz
THD:	



DSS1590A-02X-G



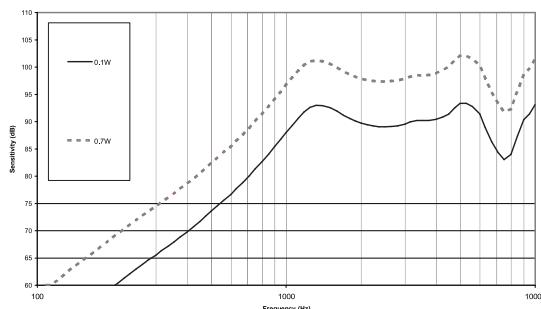
Rated Impedance:	$8\pm15\%$ ohms@ 1kHz, 1Vrms input
Rated Noise Power:	10W
Short Term Maximum Power:	20W
Sound Pressure Level:	80 ± 3 dB ref.20uPa@ 2.83Vrms, 1m Average at 600, 800, 1000, 2000Hz
Frequency of -6dB (referenced to SPL):	450 ± 90 Hz
Rated Frequency Range	100Hz~20000Hz
Frequency Response:	<10%@ 2.83Vrms, 1kHz
THD:	





DMST1318ASM-01-G

Weight : 2.6g



Size(mm):

48.51 x 18.12 x 7mm

Impedance: 8±15% ohms@2000Hz, 1Vrms input

0.7W

Rated Input Power:

1.1W

Maximum Input Power:

1.250Hz±15%

Bass Resonance Frequency:

88.5±2dB ATO.1W/10cm 800, 1000,

1200, 1500Hz AVG

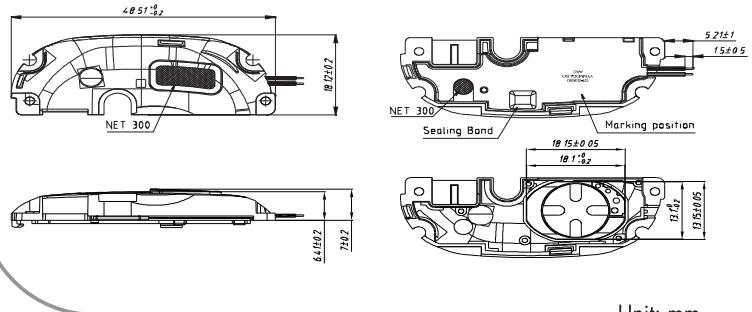
100Hz-60%, 500Hz-20%, 1000Hz-5%

5000Hz-20% at 0.89Vrms

THD: -20°C to +70°C

Operating Temperature Range: -40°C to +85°C

Storage Temperature Range: -40°C to +85°C



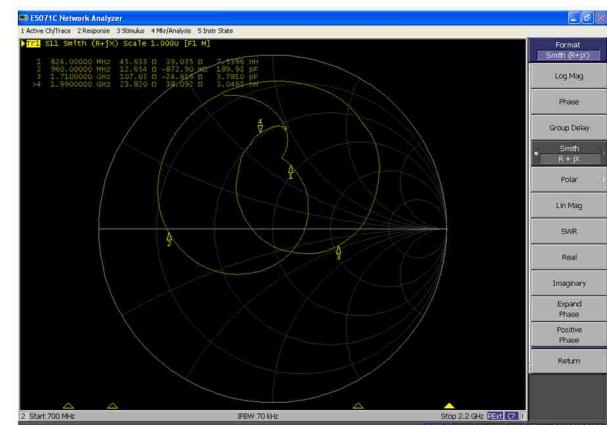
Unit: mm

Antenna Working Band

GSM850/EGSM900/DCS1800/PCS1900

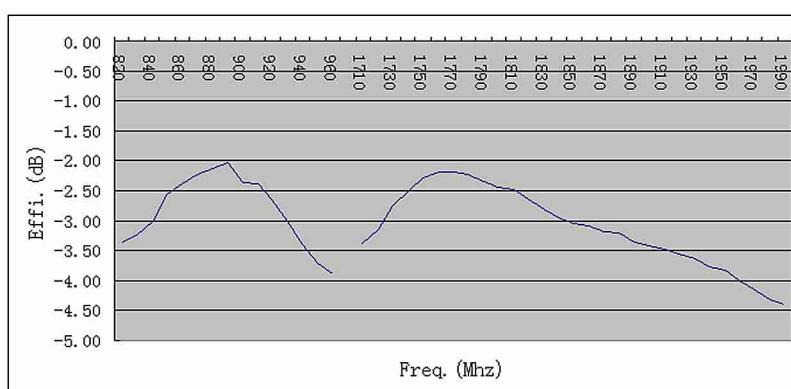


Input Return Loss



Smith Chart

Efficiency



Multi-Function Device

P. 23-24

Multi-function device is an electronic component which combines the function of a receiver and /or vibrator functionality in one device.

Applications: Mobile Phones

Multi-Function Device Naming

Model numbers of AAC Acoustic Technologies Holdings Inc. - multi-function speaker / receiver consist of the following fields :

M + Characteristic + Product Category + External Diameter + Version Number +
Contact Method + Performance Serial + Gasket Position + Green Product

Product Category

- Multi-function Device series : MSR / MPSR / MTSR

The other fields have similar meanings as those for Dynamic Miniature Speakers and Dynamic Receivers.

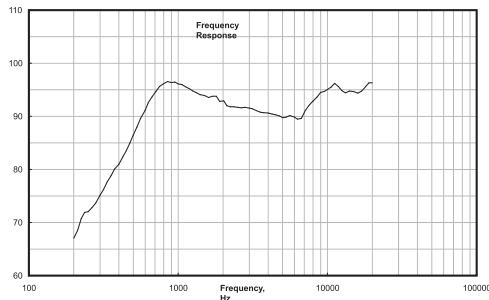
Green Product

- G - Abbreviation of green product

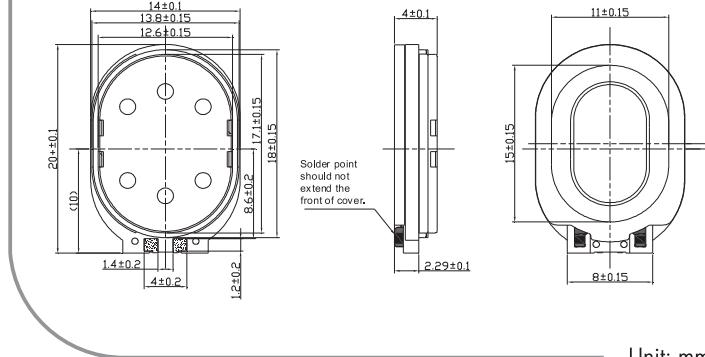


MSRV1420A-01-G

Weight : $2.5 \pm 0.2\text{g}$



Impedance: $8 \pm 15\%$ ohms@2000Hz, 1Vrms input
Rated Input Power: 0.5W
Maximum Input Power: 1.0W
Bass Resonance Frequency: $800 \pm 20\%$ Hz
Sound Pressure Level: 93 ± 3 dB at 2Vrms/10cm at 2000Hz
THD: 500Hz <30%, 1000Hz-5000Hz <10%
Operating Temperature Range: -20°C to +70°C
Storage Temperature Range: -40°C to +85°C
Vibration Resonance Frequency: 155 ± 5 Hz
Vibration Level for 80g Block: $\geq 5.5\text{m/s}^2$ at Fv@0.35Vrms



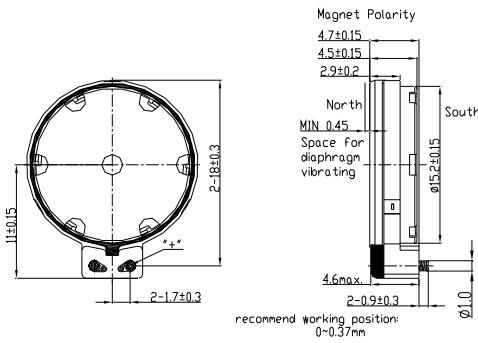
Unit: mm



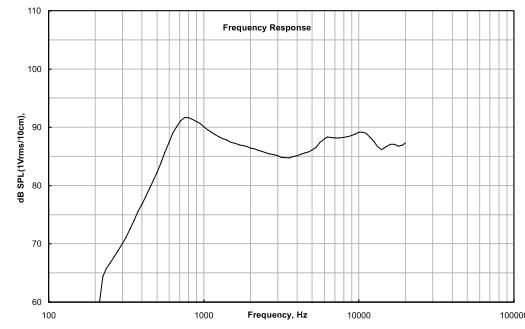
MSRV1608D-S-03-G

Weight : $2.6 \pm 0.2\text{g}$

Impedance: $8 \pm 15\%$ ohms@2000Hz, 1Vrms input
Rated Input Power: 0.5W (in 2cc box)
Maximum Input Power: 1W (in 2cc box)
Bass Resonance Frequency: 750 ± 100 Hz@1Vrms input in 2cc box
Sound Pressure Level: 86 ± 3 dB at 1Vrms/10cm at 2000Hz
THD: 500Hz <20%, 1000Hz <15%
Operating Temperature Range: -20°C to +70°C
Storage Temperature Range: -40°C to +85°C
Vibration Resonance Frequency: 157 ± 5 Hz
Vibration Level for 80g Block: $\geq 6\text{m/s}^2$ at Fv@0.35Vrms



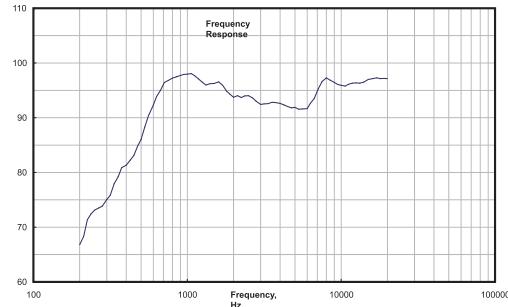
Unit: mm



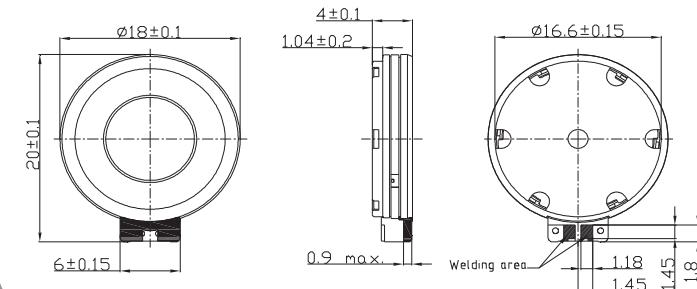


MSRV1808D-01-G

Weight : 2.6±0.2g



Impedance: 8±15% ohms@2000Hz, 1Vrms input
Rated Input Power: 0.5W
Maximum Input Power: 1.0W
Bass Resonance Frequency: 800±20%Hz
Sound Pressure Level: 94±3dB at 2Vrms/10cm at 2000Hz
THD: 800-1000Hz<15%, 1000Hz-5000Hz<10% at 2Vrms
Operating Temperature Range: -20°C to +70°C
Storage Temperature Range: -40°C to +85°C
Vibration Resonance Frequency: 155±5Hz
Vibration Level for 80g Block: ≥5.5m/s^2 at Fv@0.3Vrms



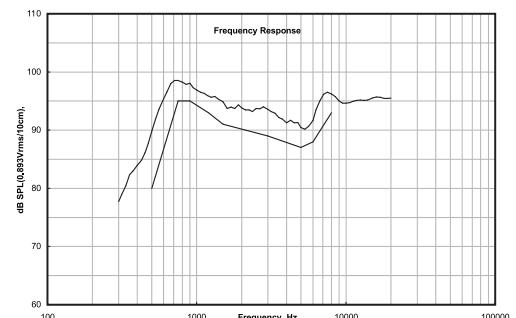
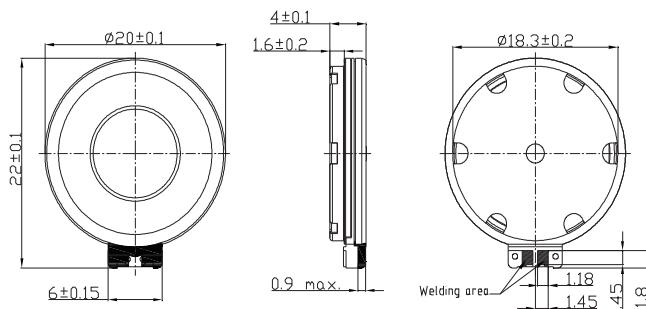
Unit: mm



MSRV2008H-01-G

Weight : 2.8±0.2g

Impedance: 8±15% ohms@2000Hz, 1Vrms input
Rated Input Power: 0.5W
Maximum Input Power: 1.0W
Bass Resonance Frequency: 800±20%Hz
Sound Pressure Level: 94±3dB at 2Vrms/10cm at 2000Hz
THD: 800-1000Hz<15%, 1000Hz-5000Hz<10% at 2Vrms
Operating Temperature Range: -20°C to +70°C
Storage Temperature Range: -40°C to +85°C
Vibration Resonance Frequency: 155±5Hz
Vibration Level for 80g Block: ≥5.5m/s^2 at Fv@0.3Vrms



Unit: mm

Miniature Receiver

P. 27-30

Miniature receiver is an electronic component which is designed to fit in mobile devices. It receives electrical signals from an amplifier or signal processor, and converts them into sound signals detectable by the human ear. Receivers are available in round, oval and rectangle shapes.

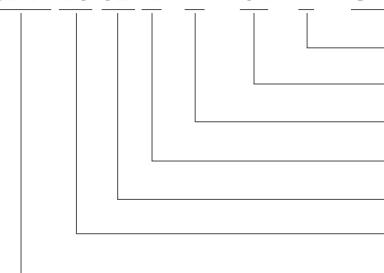
Compare with traditional fixed-line corded phone receiver, the mobile phone receiver has the same structure but much smaller size. The main parameters describes receiver's performance includes impedance at 1kHz, rated input power, maximum input power, bass resonance frequency, sensitivity at 1 kHz and THD (Total Harmonic Distortion).

Applications: Mobile phones

Miniature Receiver Naming

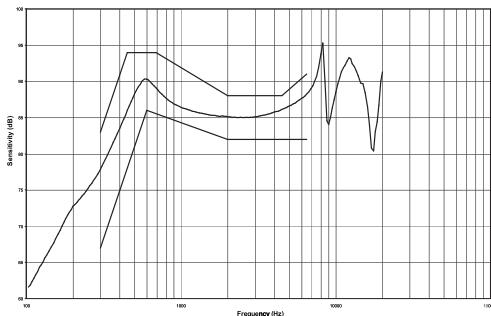
Model numbers of AAC Acoustic Technologies Holdings Inc.- speakers and receivers consist of the following fields:

**Product Category + Characteristic + External Diameter + Version Number + Impedance
+ Contact Method + Performance Serial + Gasket Position + Green Product**

Product Category	Characteristics	
■ Polyphonic Speaker series : DMS	Circular	-
■ Miniature Receiver series : SDR	Elliptical	T
	Race Track-Shaped	P
	Small	W
	High Frequency	G
	Middle Frequency	Z
	Low Frequency	D
	Wide Bandwidth	-
	Stereo	L
	For Automobiles	I
	Green Product	G
External Diameter		
■ In ohm		
Version Number		
■ Version Number assigned along product development process		
Impedance		
■ In ohm		
Contact Method		
■ PCB - (Omitted)	■ Pin Contact - P	■ Spring Contact - J
■ FPC - F	■ Wire with connector - C	■ Wired - W
Performance Serial	Example : SDR 15 32 H - P - 01 - F - G	
■ Digit showing number of times an internal component has been changed that cause changes in performance		
	Green Product Gasket in front Performance Serial Contact Method Version Number Impedance External Diameter Small Dynamic Receiver	
Gasket Position		
■ F - Gasket in the front		
■ B - Gasket at the back		
Green Product		
■ G - Abbreviation of Green Product		

**SDRP0510HJ03**

Weight : 0.3g(nominal)



Size:

4.8 x 10 x 2.0mm

Impedance:

32±20%ohms@ 1000Hz, 179m Vrms input

Rated Input Power:

10mW

Maximum Input Power:

20mW

Resonance Frequency:

520Hz ± 15% @ 179m Vrms in free air

Sensitivity:

<5% @ 566m Vrms (566m Vrms 2000Hz 1cm Baffleplate)

THD:

<55% @ 300Hz

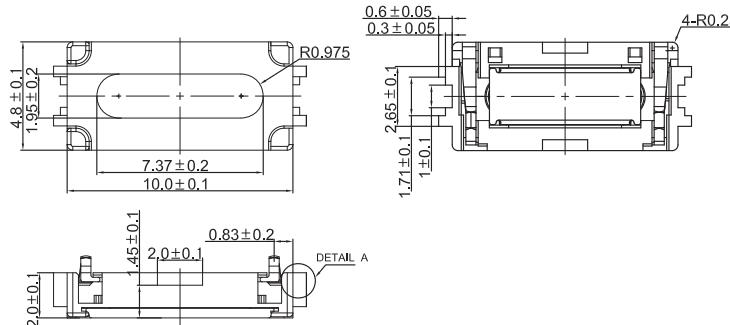
<20% @ 500Hz, <5% @ 1000Hz, <5% @ 4000Hz

Operating Temperature:

-20°C to +70°C

Storage Temperature:

-40°C to +85°C

**SDRP0612HJ03**

Weight : 0.5±0.2g

Size:

6 x 12 x 2mm

Impedance:

32±20%ohms@ 1000Hz,
566Vrms input

Rated Input Power:

10mW

Maximum Input Power:

20mW

Resonance Frequency:

350±50Hz input 566mV

Sensitivity:
Baffleplate

85±2dB@2kHz input 566mV 1cm

THD

<38% @ 300Hz

<8% @ 545Hz

<3% @ 800Hz

<3% @ 5450Hz

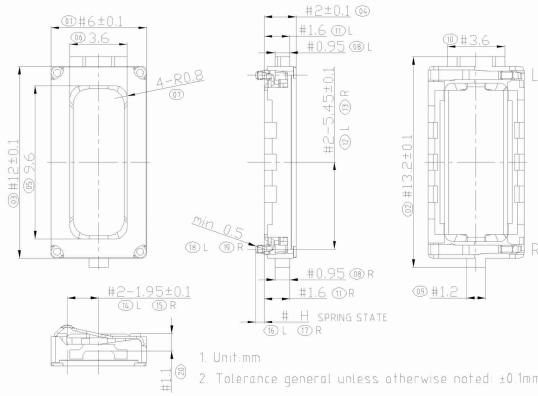
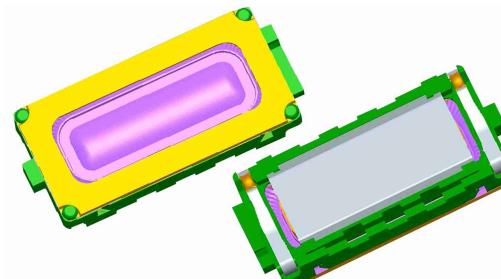
<8% @ 7100Hz

<8% @ 10000Hz

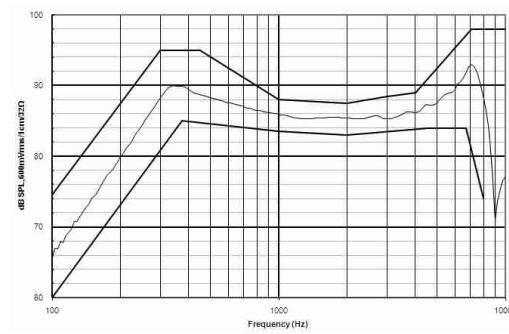
Operating Temperature Range:
Storage Temperature Range:

-20°C to +70°C

-40°C to +85°C



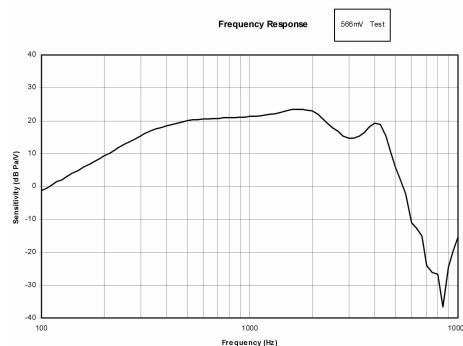
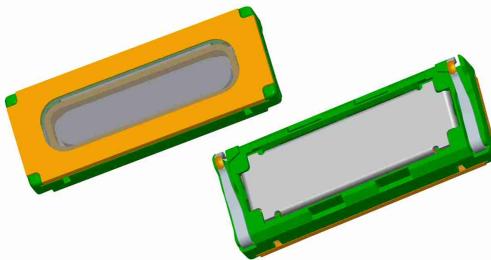
Unit: mm



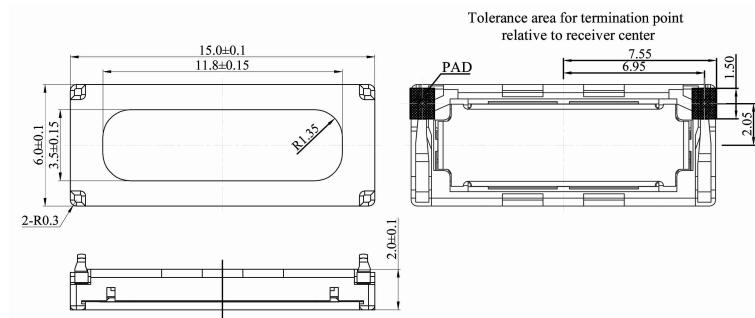


SDRP0615PJ01-G

Weight : 0.5±0.1g



Size: 6 x 15 x 2.0mm
Impedance: 32±10%@1KHz
Rated Input Power: 10mW
Maximum Input Power : 30mW
Resonance Frequency: 350±100Hz in free air
Sensitivity: 21±3dB Pa/V 566mVrms with type 3.2HL
THD: <15%(300-1KHz)
Operating Temperature: -20°C to +70°C
Storage Temperature: -40°C to +85°C



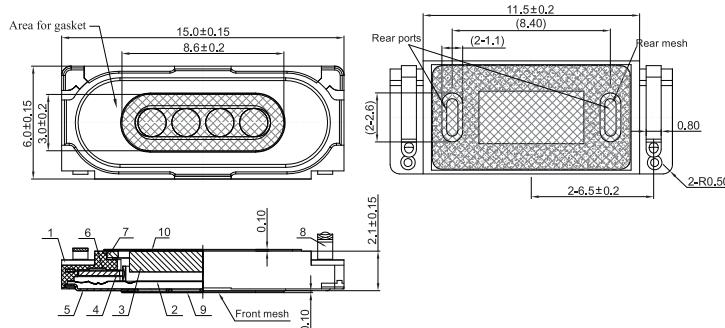
Unit: mm



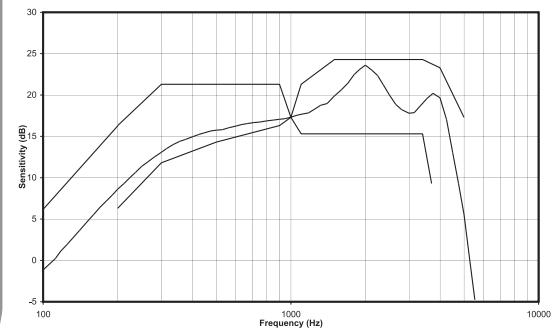
SDRP0615NJ04-G

Weight : 0.55g

Size: 6 x 15 x 2.2mm
Impedance: 32ohms
Rated Input Power: 10mW
Maximum Input Power : 50mW
Resonance Frequency: 300Hz
Sensitivity: 18dB Pa/V
THD: <15%(300-1000Hz), <3%(1000Hz)
Operating Temperature Range: -20°C to +70°C
Storage Temperature Range: -40°C to +80°C



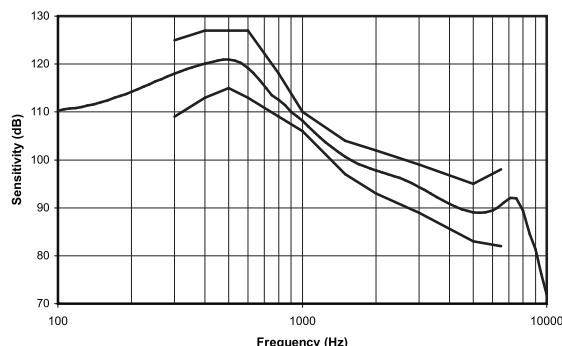
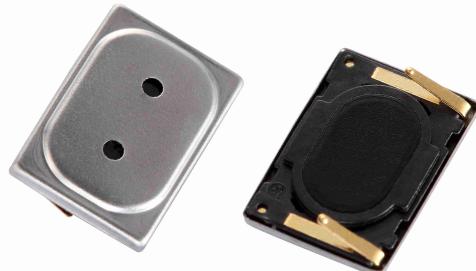
Unit: mm



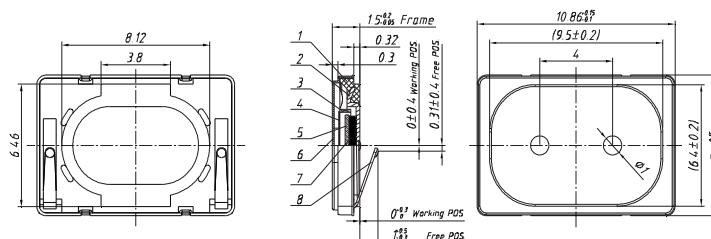


SDRP0711NJ01

Weight : 0.31g(nominal)



Size: 7.4 x 10.86 x 1.5mm
Impedance: 32±15% ohms@ 1000Hz, 179mVrms input
Rated Input Power: 10mW
Maximum Input Power : 30mW
Resonance Frequency: 400 ± 80Hz
Sensitivity: 17±3dB Pa/V (179mV 1000Hz IEC711)
THD: <15% (300Hz)@ 179mVrms
Operating Temperature Range: -20°C to +70°C
Storage Temperature Range: -40°C to +85°C

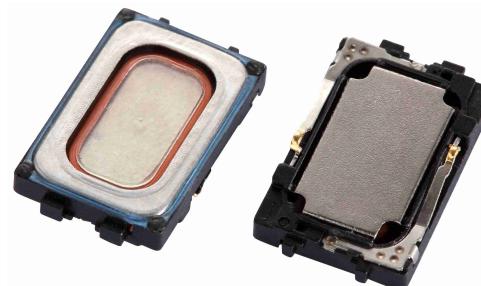


Unit: mm



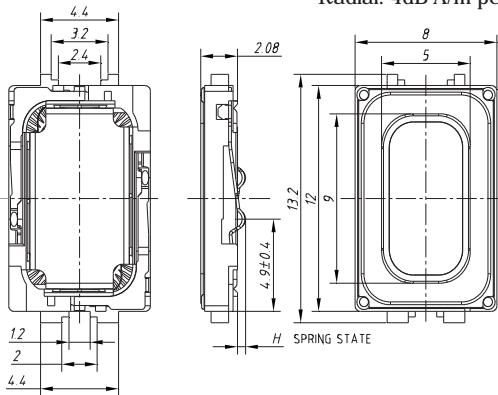
SDRP0812CJ06

Weight : 0.45g(nominal)

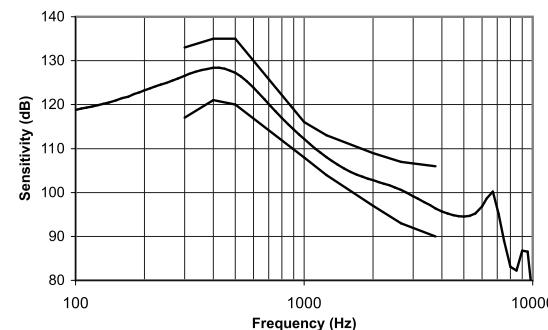


Size: 8 x 12 x 2.08mm
Impedance: 28.8±10% ohms@ 1000Hz,
Rated Input Power: 5mW
Maximum Input Power : 20mW
Resonance Frequency: 350 ± 70Hz
Sensitivity: 20.5±3dB Pa/V (179mV 1kHz)
THD: <15% (300Hz)@ 179mVrms
Axial Sensitivity: <8%(500Hz), <3%(1000Hz), <3%(4000Hz)
Radial Sensitivity: >10.5dB A/m per 1V@15mm
Operating Temperature Range: -20°C to +70°C
Storage Temperature Range: -40°C to +85°C

HAC Function:
Testing Condition:
Specification:
15mm
Axial: 12dB A/m perV
Radial: 4dB A/m perV



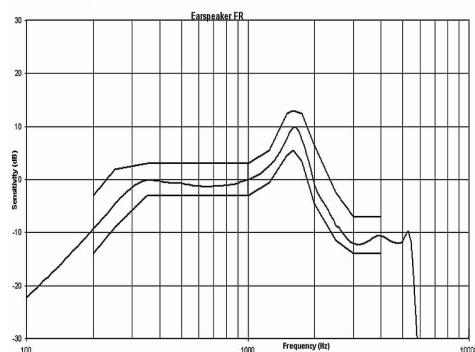
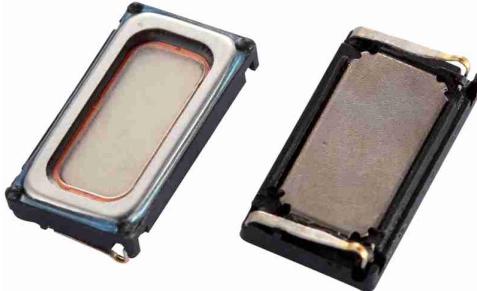
Unit: mm



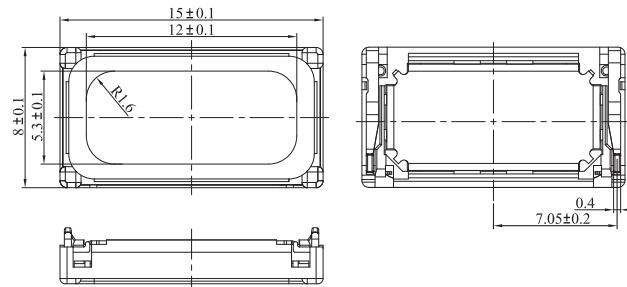


SDRP0815FJ02

Weight : 0.60g(nominal)



Size: 8 x 15 x 2.5mm
Impedance: 32±20% ohms@ 1000Hz, 179mVrms input
Rated Input Power: 10mW
Maximum Input Power : 50mW
Resonance Frequency: 300 ± 45Hz
Sensitivity: 25.5±2.5dB Pa/V (566mV 1000Hz IEC711 highleakage)
THD: <45% (300~500Hz)@ 566mVrms
Operating Temperature Range: <14% (500~1000Hz), <4% (1k~4000Hz)
Storage Temperature Range: -20°C to +70°C
HAC Function: -40°C to +85°C
Testing Condition: 15mm
Specification: Axial: 15dB A/m perV
 Radial: 7dB A/m perV



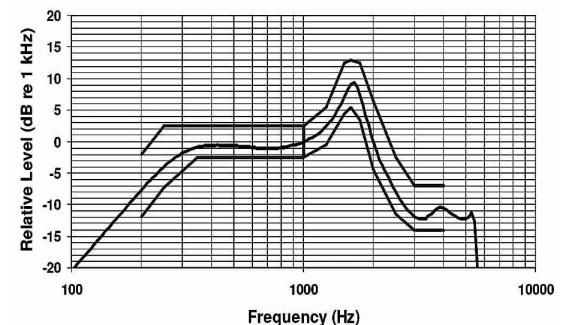
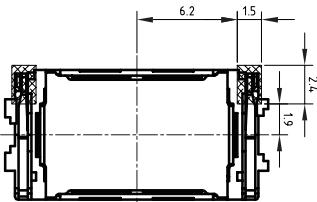
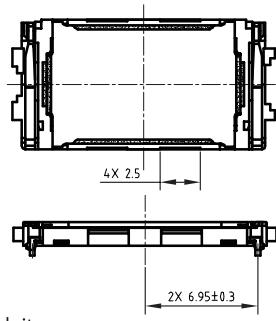
Unit: mm



SDRP0815HJ01

Weight : 0.5g

Size: 8 x 15 x 1.5mm
Impedance: 32ohms
Rated Input Power: 20mW
Maximum Input Power : 50mW
Resonance Frequency: 250Hz
Sensitivity: 25.5dB Pa/V
THD: <4% (1000Hz)
Operating Temperature Range: -20°C to +70°C
Storage Temperature Range: -40°C to +85°C
HAC Function:
Testing Condition: 15mm
Specification: Axial: 13dB A/m perV
 Radial: 5dB A/m perV



Unit: mm

Microphone

P. 33-37

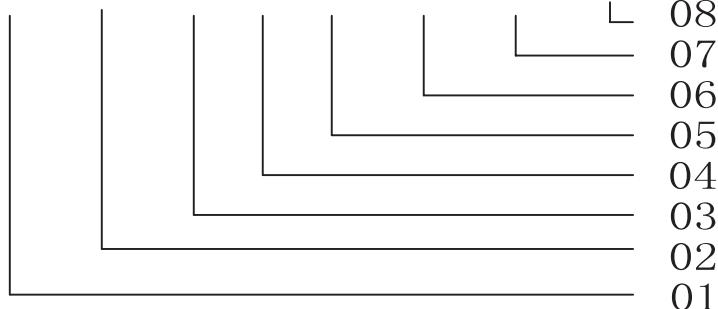
Microphone is devices that receive sound signals and convert them into electrical activities for processing by an amplifier or signal processor. Electret condenser microphone (ECM) is used primarily for its audio pickup strengths and has a similar structure consisting of a diaphragm and a back electret apposite condenser. We have both uni and omni directional microphones, you can also opt analog or digital output types. (For application such as noise and echo cancellation)

The technical parameters describe ECM's performance including sensitivity, output impedance, maximum operation voltage, standard operation voltage, current consumption and s/N ratio.

Applications; Mobile phones, laptops, MP3/MP4s, digital cameras, Automotive.

Microphone Naming

Example: XXX XXXX X -XX XXX-XXX-XXX-X



- 01 ACM AAC Back Electret Condenser Microphone
ACMG AAC Back Electret Condenser Microphone of Green Product
- 02 Microphone Dimensions :
First two digits - xternal diameter
Last two digits - Height
- 03 Directivity :
O - Omni-directional
U - Uni-directional
N - Noise Canceling
A - Embedded Amplifier for High Sensitivity
- 04 Embedded Capacitor :
01 - Embedded 10pF capacitor for the 1.8GHz band (DECT, S)
02 - Embedded 10pF and 33pF capacitor for the 1.8GHz & 900MHz bands (Dual Band)
03 - Embedded 33pF capacitor for the 900MHz band (GSM, PDC, DECT, PCS)
04 - Embedded 10pF and 33pF capacitor and other capacitor or electronic part that client's request
05 - Embedded capacitor or electronic part of client's request
- 05 Contact Method :
P28 - Pinned's Pin length 2.8mm
W20 - Wired's wire length 20mm
W - Soldered
L50 - FPCB's FPCB length 5.0mm
B - Solderless type
C10 - Wired with Connector's wire length 10mm
S - Surface mount devices
- 06 Sensitivity :
443 ----- -44±3dB
423 ----- -42±3dB
- 07 Rubber
TXX --- T With insulating rubber holder, serial number XX
HXX --- H With conducting rubber holder, serial number XX
- 08 Issue:
A --- edition (Not writing normally)
B --- edition



ACMG3015-05S

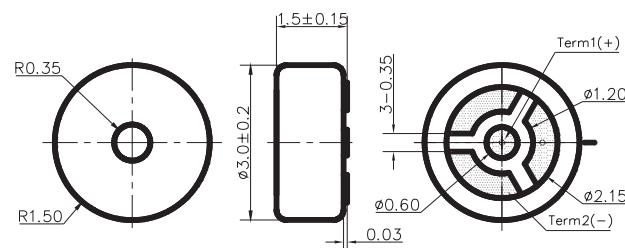
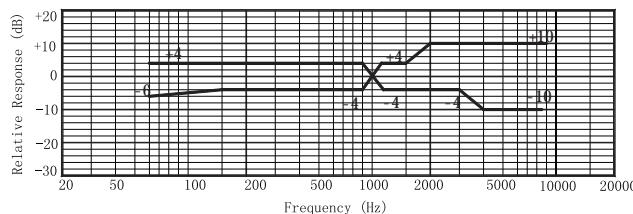
Weight : Less than 0.5g



Sensitivity: $-42 \pm 3\text{dB}$
 Operating Voltage: 1.5V-5V
 Output Impedance: $<2200\Omega$
 Directivity: Omni directional
 Current: Vs=2.0V, RL=2200Ω
 S/N Ratio: >58dB
 Operating Temperature Range: -30°C to +70°C
 Storage Temperature Range: -40°C to +85°C



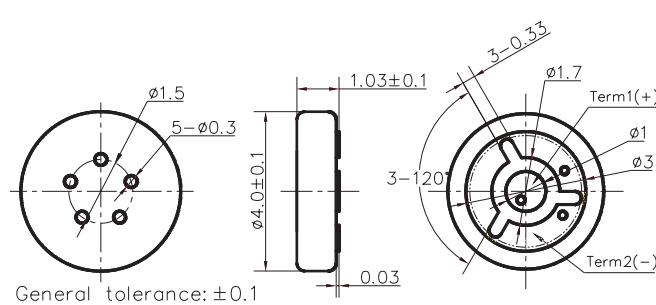
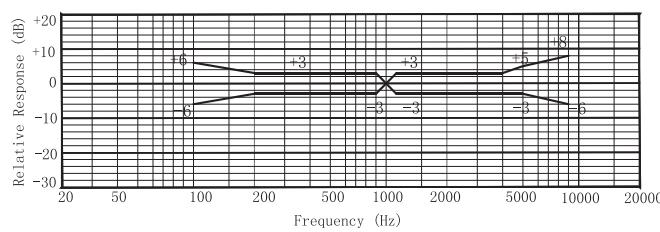
Unit: mm



ACMG4010-05S

Weight : Less than 0.5g

Sensitivity: $-44 \pm 3\text{dB}$
 Operating Voltage: 1V-10V
 Output Impedance: $<2200\Omega$
 Directivity: Omni directional
 Current: Vs=2.0V, RL=2200Ω
 S/N Ratio: >58dB
 Operating Temperature Range: -30°C to +70°C
 Storage Temperature Range: -40°C to +85°C



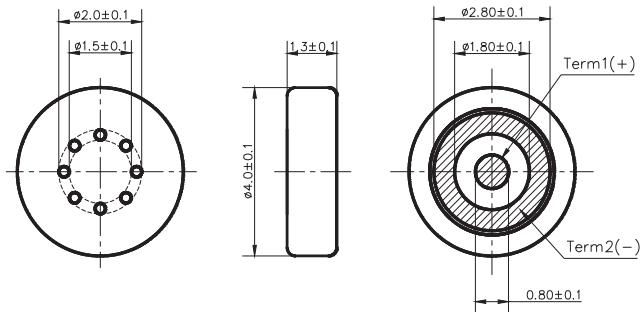
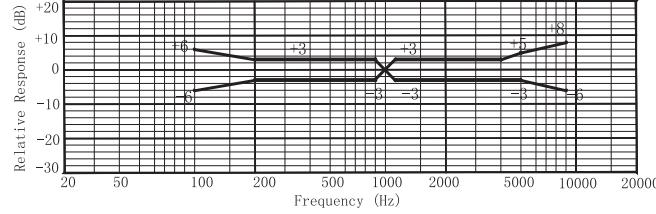


ACMG4013-05S

Weight : Less than 0.5g



Sensitivity: $-44 \pm 3 \text{dB}$
 Operating Voltage: 1V-10V
 Output Impedance: $<2200\Omega$
 Directivity: Omni directional
 Current: Vs=2.0V, RL=2200 Ω
 S/N Ratio: >58dB
 Operating Temperature Range: -30°C to +70°C
 Storage Temperature Range: -40°C to +85°C



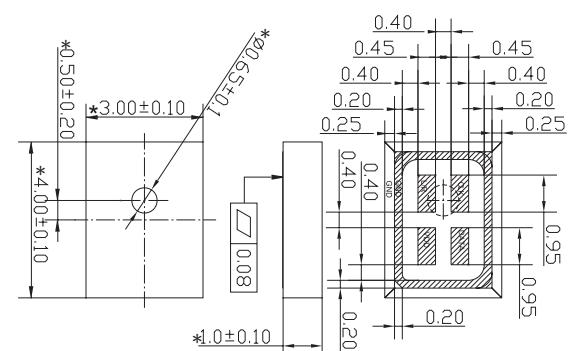
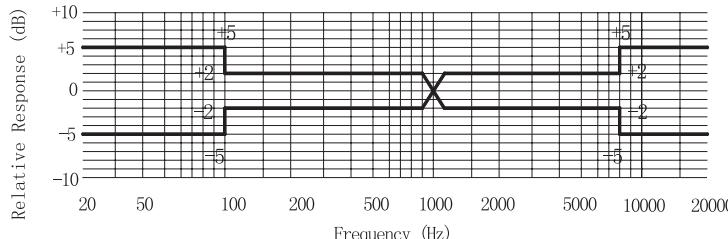
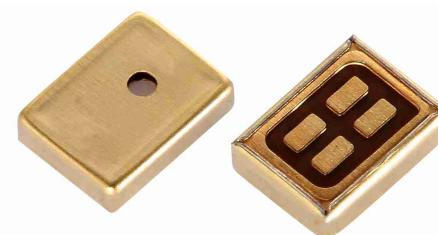
Unit: mm



ADMG4310-263

Weight : Less than 0.5g

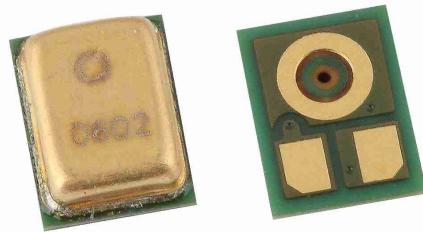
Sensitivity: $-26 \pm 3 \text{dB}$
 Operating Voltage: 1.64V-2.86V
 Directivity: Omni directional
 Current: Max.600 μA
 S/N Ratio: >60.5dB
 Operating Temperature Range: -30°C to +70°C
 Storage Temperature Range: -40°C to +85°C



Unit: mm

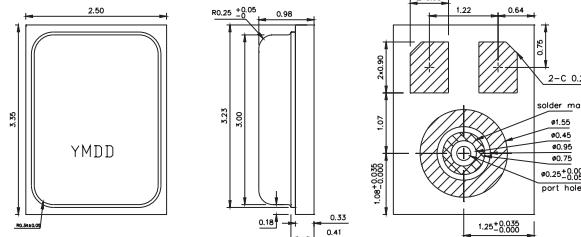
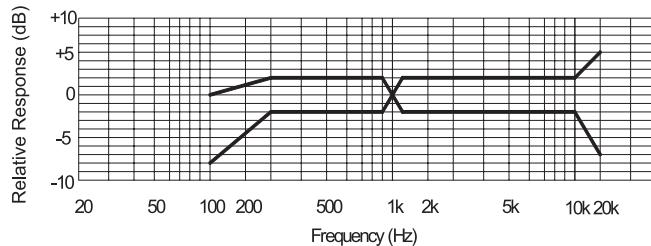


SM0102B-383-M02



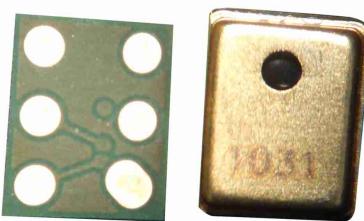
Directivity: Omni directional
 Sensitivity: $-38 \pm 3 \text{ dB}$
 Output Impedance: $<300\Omega$
 Supply Voltage: 1.5V-3.6V
 Current: 150 μA
 S/N Ratio: 60dB
 Operating Temperature Range: -40°C to +85°C
 Storage Temperature Range: -40°C to +85°C at Soldered onto PC Board
 -10°C to +50°C in Tape/Reel's

Unit: mm

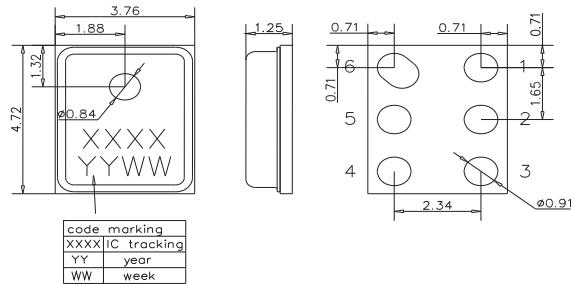
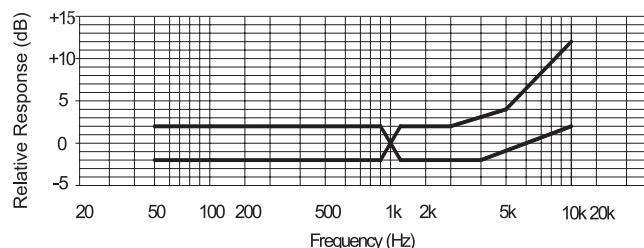


SDM0301-263-M01

Directivity: Omni directional
 Sensitivity: $-26 \pm 3 \text{ dB}$
 Supply Voltage: 1.6V-3.6V
 Current: 850 μA
 S/N Ratio: 56dB
 Operating Temperature Range: -40°C to +85°C
 Storage Temperature Range: -40°C to +85°C at Soldered onto PC Board
 -10°C to +50°C in Tape/Reel's

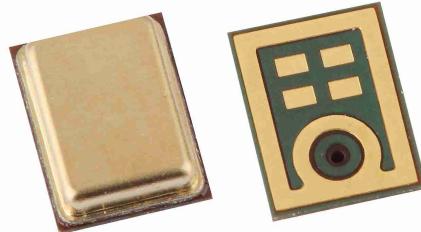


Unit: mm

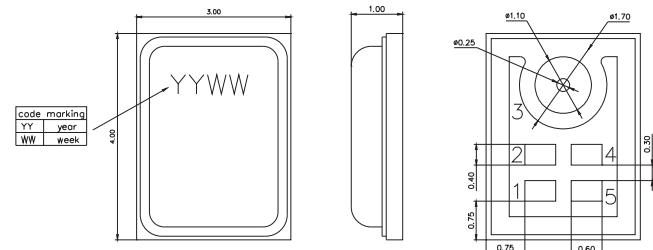
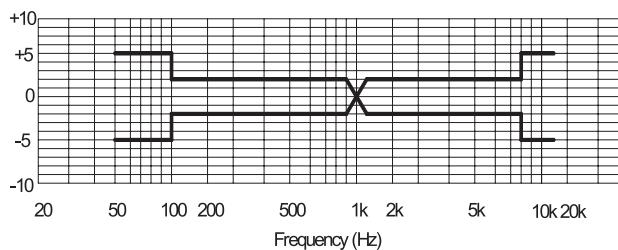




SDM0401B-263-M02

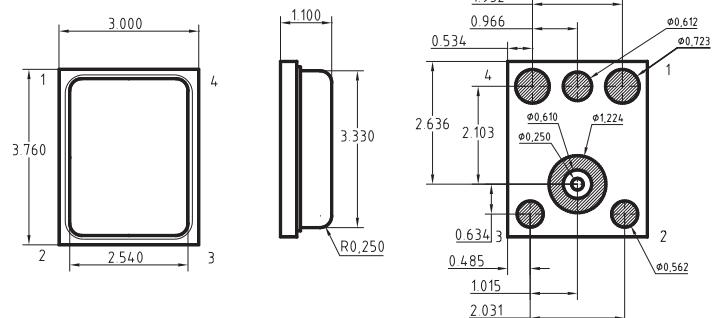
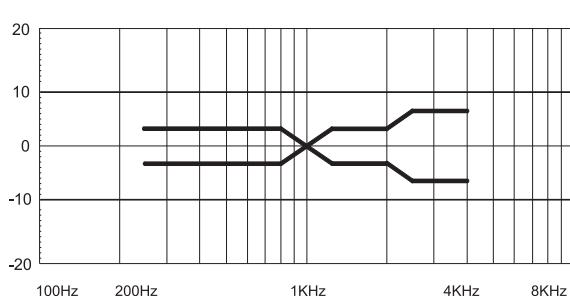
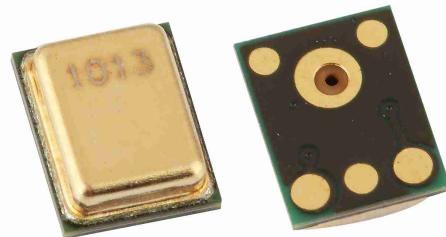


Directivity: Omni directional
 Sensitivity: -26±3dB
 Supply Voltage: 1.64V-2.86V
 Current: 1-10mA
 60.5dB
 S/N Ratio:
 Operating Temperature Range: -40°C to +85°C
 Storage Temperature Range: -40°C to +85°C at Soldered onto PC Board
 -10°C to +50°C in Tape/Reel's



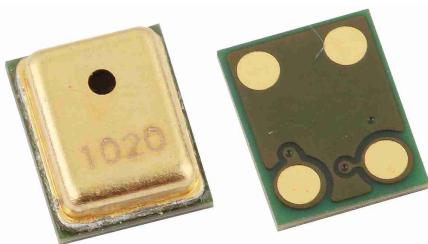
SM0401BL-F383-M01

Directivity: Omni directional
 Sensitivity: -38±3dB
 Output Impedance: <400Ω
 Supply Voltage: 1.5V-3.6V
 Current: 0.25mA
 60dB
 S/N Ratio:
 Operating Temperature Range: -40°C to +85°C
 Storage Temperature Range: -40°C to +85°C at Soldered onto PC Board
 -10°C to +50°C in Tape/Reel's



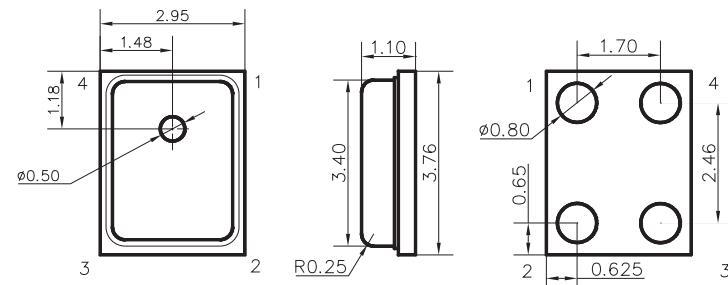
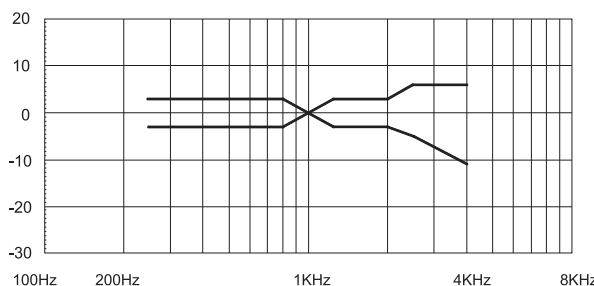


SM0401L-F423-M01



Directivity:
Omni directional
Sensitivity:
 $-42 \pm 3 \text{dB}$
Output Impedance:
 $<400\Omega$
Supply Voltage:
1.5V-3.6V
Current:
0.25mA
S/N Ratio:
59dB
Operating Temperature Range:
-40°C to +85°C
Storage Temperature Range:
-40°C to +85°C at Soldered
onto PC Board
-10°C to +50°C in Tape/Reel's

Unit: mm



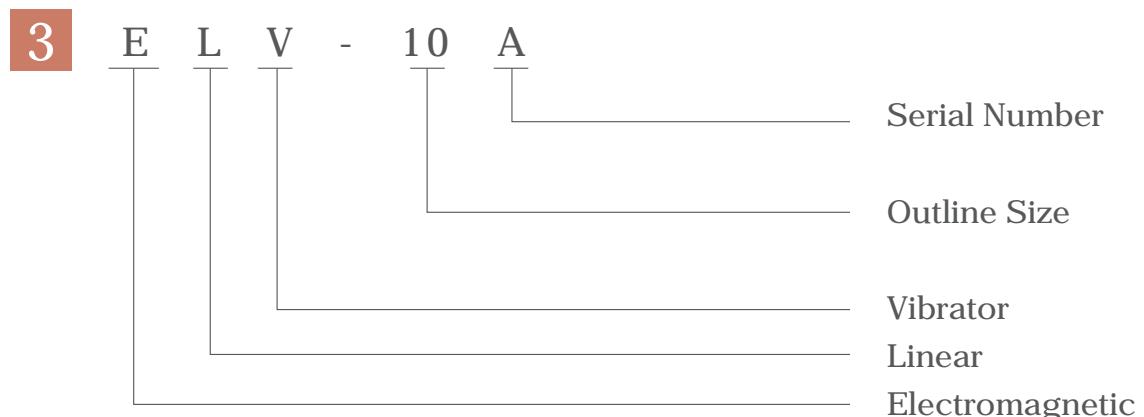
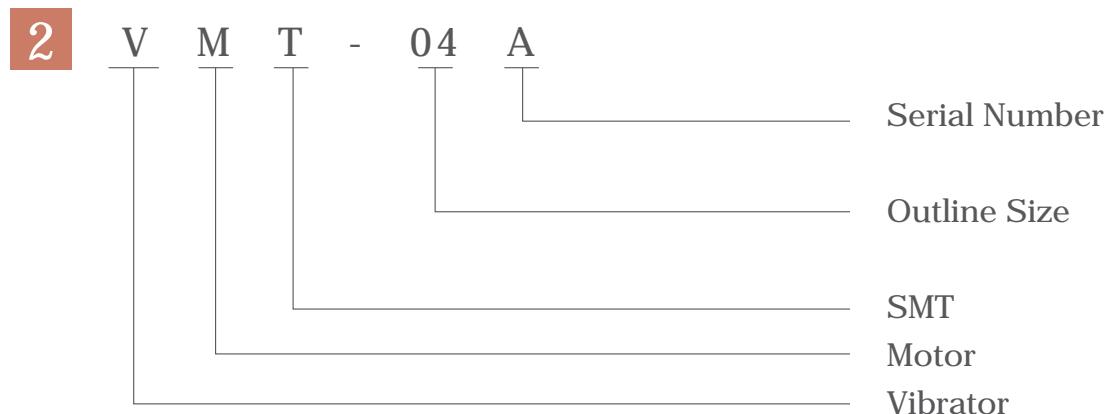
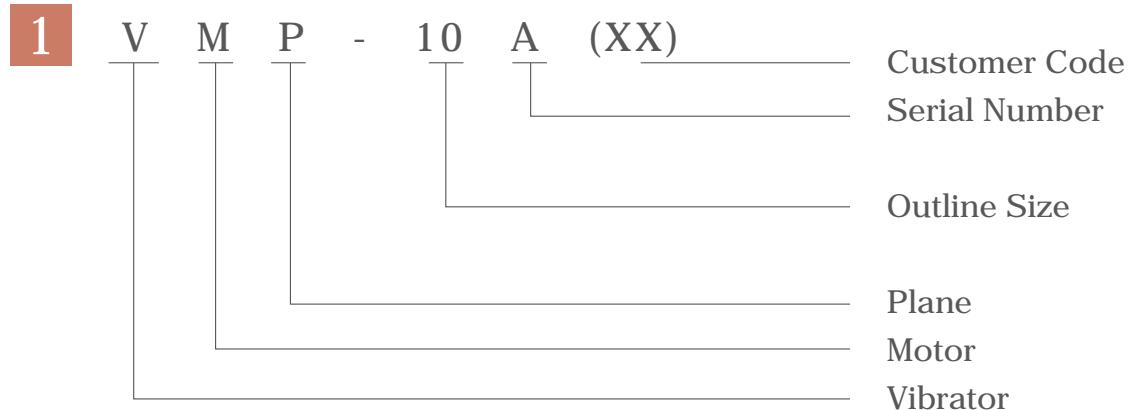
Haptics/Vibrator

P. 41-42

Haptics / Vibrator motors are used as sensory feedback device incoming alert and brushless. Haptics / Vibrator are classified into different types such as iron-core, brushless, vibrating motors, flat or pancake and linear Haptics / Vibrator etc. The main parameters describe the performance including rated voltage, operating voltage, standard speed, standard current, starting voltage, armature resistance and mechanical noise.

Applications: Mobile phones, PNDs

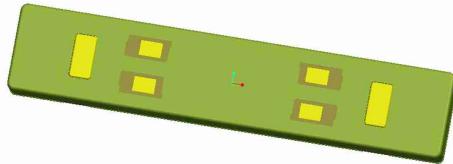
Haptics/Vibrator Naming



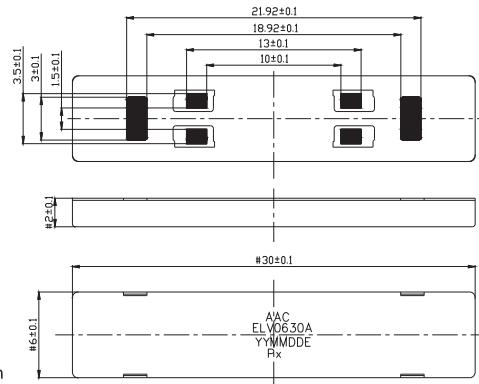


ELV0630A

Weight : 2.8g(nominal)



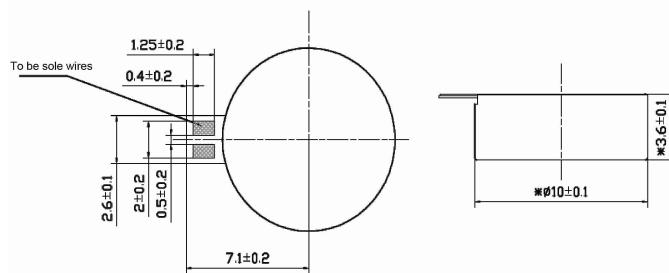
Rated Voltage: 2Vrms
 Vibration: 7m/s² at 100g Cubic Fixture (Organic Class)
 Resonance Frequency: 157±5Hz
 Shape: 6 x 30 x 2.0mm
 Nominal Operating Current: 150mA max
 Max Input Voltage: 2.3Vrms
 Terminal Resistance: (25±20%)Ω
 Mechanical Noise: 50dBA Max at 10cm
 Operating Temperature Range: -20°C to +70°C
 Storage Temperature Range: -40°C to +80°C



ELV1036A

Weight : 2.0g(nominal)

Rated Voltage: 2V
 Vibration: 5.0m/s² at 100g Cubic Fixture (Organic Class)
 Resonance Frequency: 175±5Hz
 Shape: φ10 x 3.6mm
 Nominal Operating Current: 80mA max
 Max Input Voltage: 2Vrms
 Terminal Resistance: (25±20%)Ω
 Mechanical Noise: 50dBA Max at 10cm
 Operating Temperature Range: -20°C to +70°C
 Storage Temperature Range: -40°C to +80°C



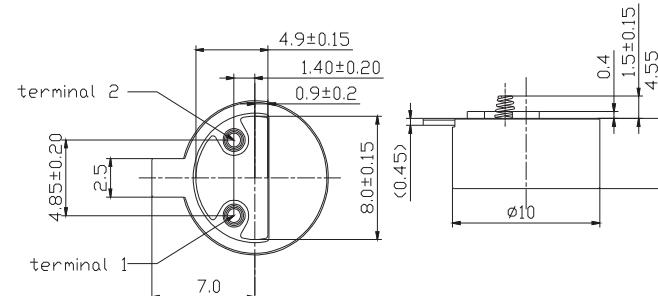


ELV1045AS

Weight : 2.5g(nominal)



Rated Voltage:	1.41Vrms
Vibration:	4.5m/s^2 at 140g Cubic Fixture (Organic Class)
Resonance Frequency:	157±5Hz
Shape:	ø10 x 4.5
Nominal Operating Current:	60mA max
Max Input Voltage:	1.875Vrms
Terminal Resistance:	(25±20%)Ω
Mechanical Noise:	50dBA Max at 10cm
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +80°C



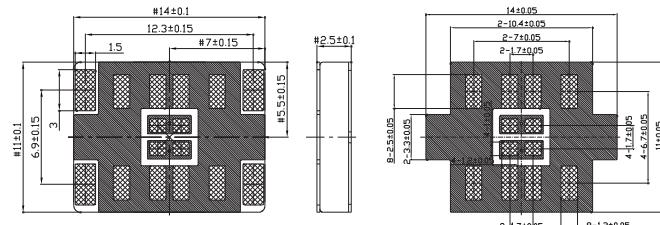
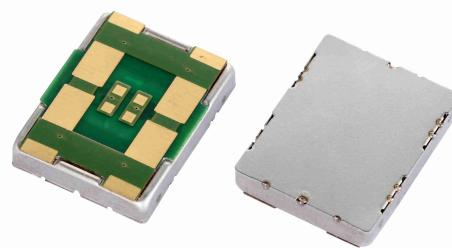
Unit: mm



ELV-1411A

Weight : 2.5g(nominal)

Rated Voltage:	2Vrms
Vibration:	7m/s^2 at 100g Cubic Fixture (Organic Class)
Resonance Frequency:	150±5Hz
Shape:	14 x 11 x 2.5mm
Nominal Operating Current:	150mA max
Max Input Voltage:	2.3Vrms
Terminal Resistance:	(25±20%)Ω
Mechanical Noise:	50dBA Max at 10cm
Operating Temperature Range:	-20°C to +70°C
Storage Temperature Range:	-40°C to +80°C



Unit: mm

Transducer & Ceramic Product

P. 45-47

Transducer

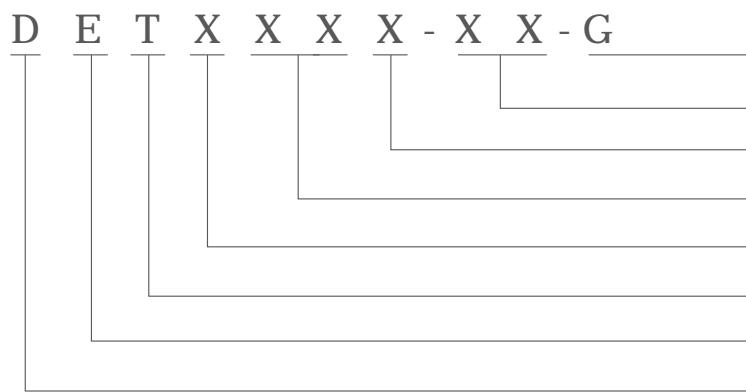
Transducers or buzzers are used in the mobile phone, consumer electronic devices etc. It converts electrical signals into a simple audible tone. A typical transducer construction comprises of a cap, vibrating disc, annular magnet, coil and casing base with contact terminals such as springs, pins or pads. The transducer with soldering pads called SMD transducer which can be directly fit into a SMT manufacturing line.

The main parameters describes a transducer's performance are resonance frequency and maximum sound pressure level (SPL), other important parameters include rated voltage (peak-to-peak value), operating voltage (peak-to-peak value), rated current and coil resistance.

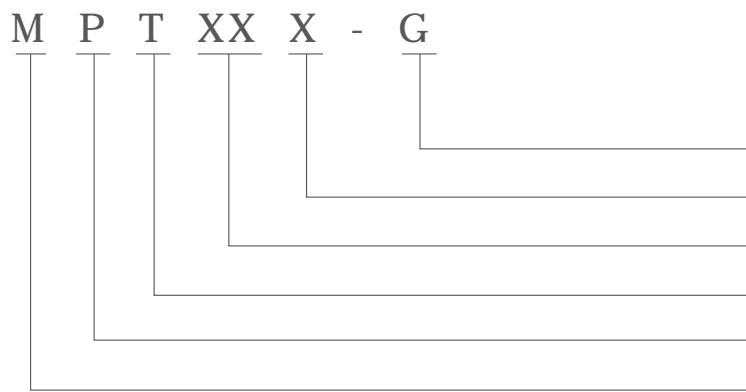
Applications: Mobile phone

Transducer Naming

1



2



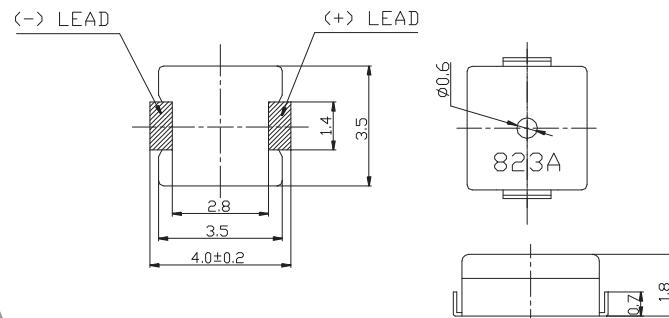


DET301-G

Weight : 0.05g



Size:	3.5 x 3.5 x 1.8mm
Rated Voltage:	3.0 VDC
Operating Voltage:	2.0~4.0 VDC
Rated Current:	Max.120mA
Coil DC Resistance:	10±2Ω
Sound Output at 5cm:	Min.68dBA
Rated Frequency:	1100Hz
Housing Material:	LCP
Operating Temperature Range:	-40°C to +85°C
Storage Temperature Range:	-40°C to +85°C



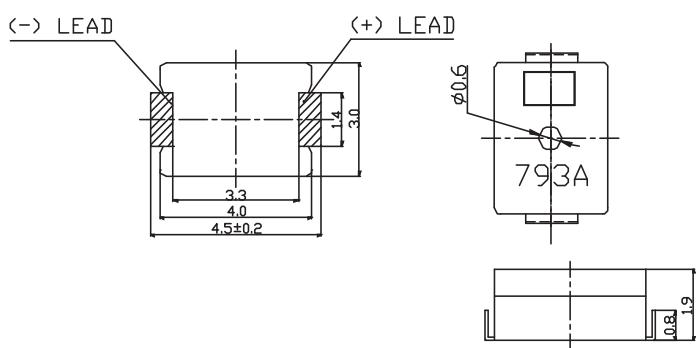
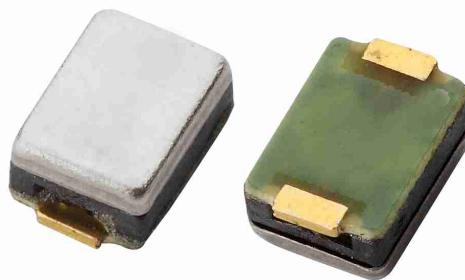
Unit: mm



DET402-G-1

Weight : 0.05g(nominal)

Size:	3.0 x 4.5 x 1.9mm
Rated Voltage:	3.0VDC
Operating Voltage:	2.0~4.0VDC
Rated Current:	Max.120mA
Sound Output at 5cm:	Min.70dB
Resonant Frequency:	1100Hz
Operating Temperature Range:	-40°C to +85°C
Storage Temperature Range:	-40°C to +85°C



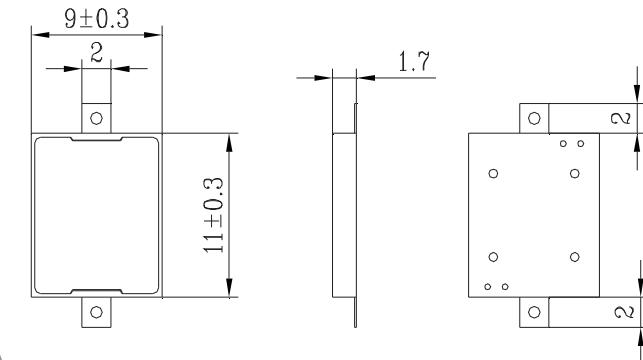
Unit: mm



MPT11-G



Operating Voltage: 1~25 (VP-P)
 Current: ≤ 4.5(mA)
 Capacitance at 1kHz: 12000±30% (pF)
 SPL(10cm, 5Vp-p, square wave, 4.1kHz): ≥ 70(dB)
 Operating Temperature: -40 to +120(°C)
 Storage Temperature: -40 to +120(°C)

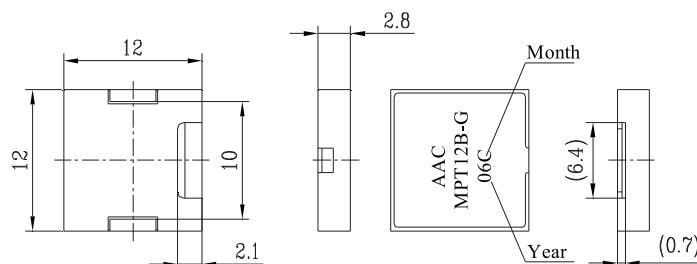


Unit: mm



MPT12B-G

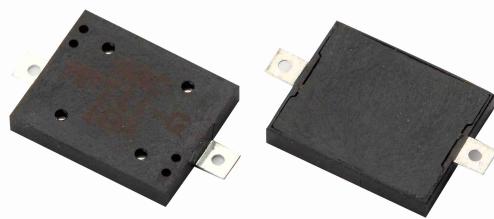
Operating Voltage: 1~25 (VP-P)
 Current: ≤ 3(mA)
 Capacitance at 1kHz: 15000±30% (pF)
 SPL(10cm, 3Vp-p, square wave, 4.0kHz): ≥ 75(dB)
 Operating Temperature: -40 to +120(°C)
 Storage Temperature: -40 to +120(°C)



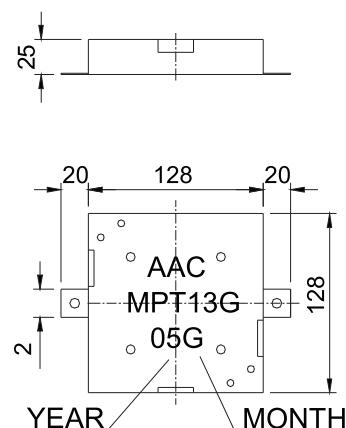
Unit: mm



MPT13-G



Operating Voltage: 1~25 (VP-P)
 Current: ≤ 3(mA)
 Capacitance at 1kHz: 16000±30% (pF)
 SPL(10cm, 5Vp-p, square wave, 4.1kHz): ≥ 80(dB)
 Operating Temperature: -40 to +120(°C)
 Storage Temperature: -40 to +120(°C)

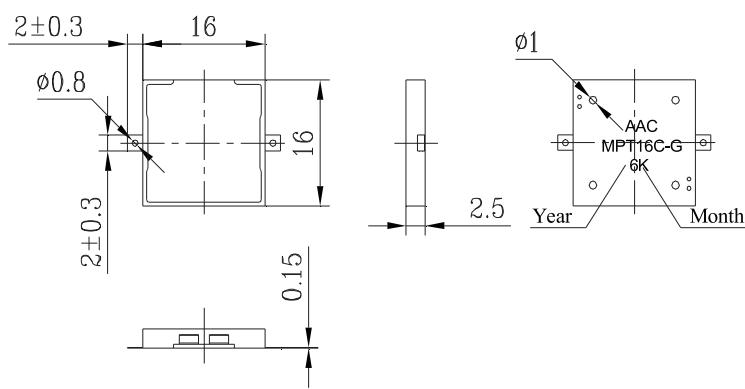


Unit: mm



MPT16C-G

Operating Voltage: 1~25 (VP-P)
 Current: ≤ 1(mA)
 Capacitance at 1kHz: 14000±30% (pF)
 SPL(10cm, 3Vp-p, square wave, 4.0kHz): ≥ 75(dB)
 Operating Temperature: -40 to +120(°C)
 Storage Temperature: -40 to +120(°C)



Unit: mm



Transducer & Ceramic Product

Ceramic Product

P. 51-54

Ceramic speaker is a piezoelectric component, designed to fit mobile phones or laptops, that receives electrical signals from an amplifier and converts the electrical signals into sound signals. In a mobile phone or laptop, the ceramic speaker plays music and sound.

A ceramic speaker generally comprises a ceramic plate, diaphragm and frame, whose thickness is more thinner than a dynamic speaker. The main parameters that describe the ceramic speaker's performance include capacitance (at 120Hz), rated input voltage, maximum input voltage, bass resonance frequency, sensitivity at 2 kHz.

Introduction of Ceramic Filter

A RF ceramic product is an electronic component, designed to fit in the mobile devices, that transform input RF signal into output signal which is appropriate to the signal processing. According to the way of this transformation, It could be named as like 'Band Pass Filter', 'Balun', 'Diplexer', 'Coupler', 'Antenna', 'Balun Filter' and 'Delay Line' etc.

Using ceramic material to implement RF component's function, we could supply smaller and more reliable products to our customers without loss of it's performance.

Introduction of Antenna

A ceramic antenna consists of a ceramic body and a conductor which inside the ceramic body or on its surface.

Due to the high dielectric constant of the ceramic materials and the LTCC processing technology, our ceramic antenna products have compact size and low profile. Moreover, the ceramic antennas have high isolation capability to its surrounding antennas and hands influence. These characteristics make our products suitable for using in all kinds of small-sized communication equipments, such as mobile phones, personal digital assistants, globe positioning systems, wireless local area networks and so on.

There are several important parameters like operating frequency, impedance, bandwidth, gain, radiation pattern, efficiency, and polarization. All these parameters can be adjusted during the design process according to the application situation and customer requirement. In addition, we have advanced measurement system, the SG24 of Satimo, to ensure our R&D efficiency.

Introduction of Piezo

A piezoelectric diaphragm consists of a piezoelectric ceramic plate which has electrodes on both sides and a metal plate.(Brass or stainless steel, etc.).

Piezo Ceramic Diaphragm has below advantages:

- Extremely clear sound
- Ultra thin and light weight
- No noise and highly reliable
- Low power consumption for voltage type

Applications:

Clocks / Pagers / Calculators / Washing Machine /
Various Alarms (Burglar Alarms, etc.).

Ceramic Product Naming

Ceramic Actuator

Product Category + External Dimension + Version Number + Green Product

Product Category

- Multi Layer Unimorph: ML
- Multi Layer Bimorph: MLB
- Single Layer Unimorph: SL
- Single Layer Bimorph: SLB

External Dimension

- Length and Width in mm

Version Number

- A
- B
- C

Green Product

- Abbreviation of Green Product

Example : MLB 3503 -G

Green Product

External Dimension
(Length and Width)

Multi Layer Bimorph

FT - 12 H - 5.6 A 1 - W L 32 A - G

Code of green product

Both sided adhesive tape

Length of wire

Type of wire

With wire

Appearance(1-Plate 2-Tray)

Electrode type
A-Rotundity B-Partition

Resonant Frequency(KHz)

Metal Support Material
T-Brass G-Stainless Steel H-Nickel

Diameter(mm)

Series

Ceramic Antenna

AT 2K X 05 52 1 N X
(1) (2) (3) (4) (5) (6)(7)(8)

1. Product Type: Chip Antenna
2. Center Frequency Index
3. Characteristics Type: Don't care (Residue for the future)
4. Impedance: 50Ω
5. Size: 52g 5.0 x 2.0mm/
31g 3.2 x 1.6mm
6. Thickness: 1.10mm
7. DC Feed: Non DC Feed
8. Serial: Don't care

Ceramic Piezo Disc

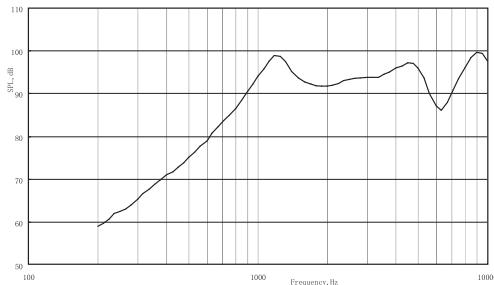
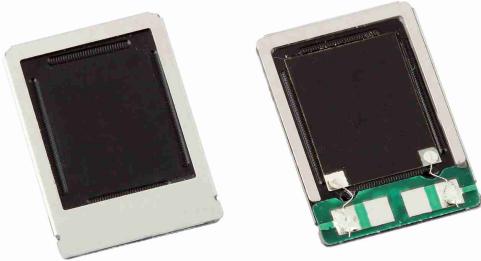
DF TL A 05 32 2 N F
(1) (2) (3) (4) (5) (6)(7)(8)

1. Product Type: Dual Band Pass Filter
2. Center Frequency: 207MHz / 1472MHz
3. Characteristics Type: Low Insertion Loss
4. Impedance: 50Ω
5. Size: 3.2 x 2.5mm
6. Thickness: 1.2mm
7. DC Feed: Non DC Feed
8. Extra Code

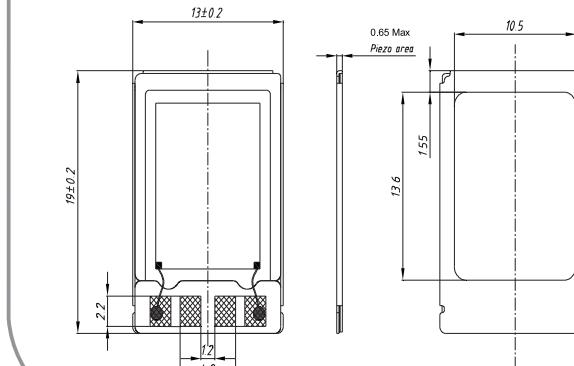


PSF1913D-01

Weight : 0.3g(Normal)



Size(mm): 19 x 13 x 0.5mm
Capacitance: 900nF ± 20%
Rated Input Power: 4Vrms
Maximum Input Power: 5Vrms
Resonance Frequency: 1200±240Hz
Sound Pressure Level: 92±4dB@2000Hz(4Vrms, 5cm)
Operating Temperature Range: -20°C to +70°C
Storage Temperature Range: -40°C to +85°C



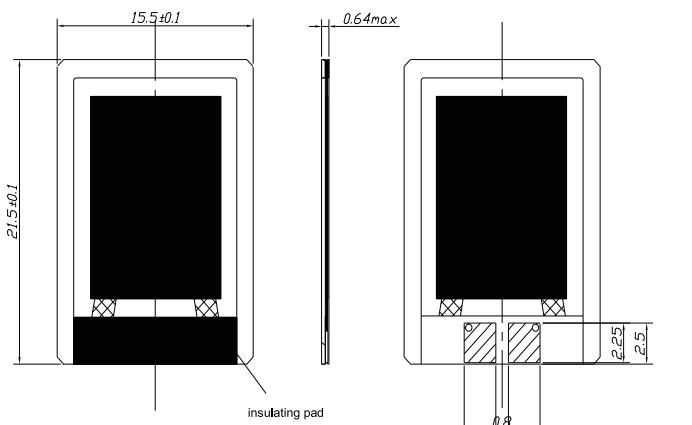
Unit: mm



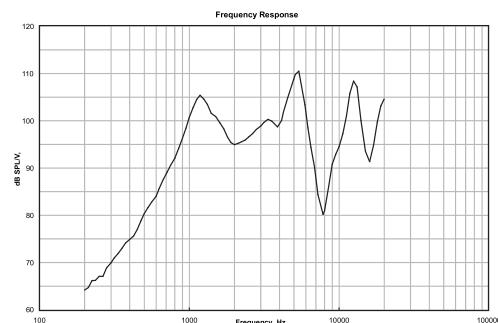
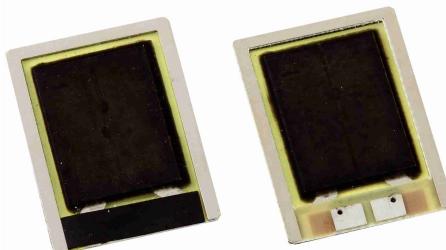
PSF2115A-01-F1

Weight : 0.3g(Normal)

Size(mm): 21.5 x 15.5 x 0.64mm
Capacitance: 1200nF ± 20%
Rated Input Power: 5Vrms
Maximum Input Power: 6Vrms
Resonance Frequency: 1400±280Hz
Sound Pressure Level: 100±4dB (5Vrms, 5cm)
Operating Temperature Range: -20°C to +70°C
Storage Temperature Range: -40°C to +85°C



Unit: mm



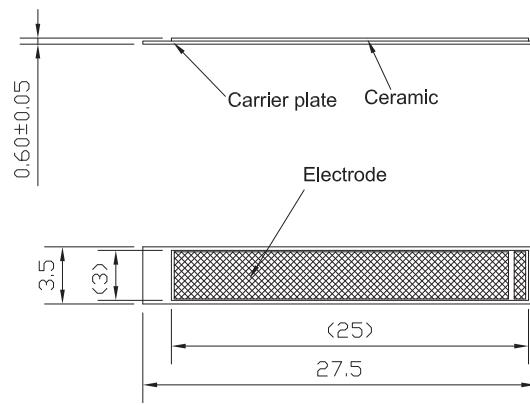


ML2503-G

Weight : 0.45g(nominal)



Size: $27.5 \times 3.5 \times 0.6\text{mm}$
 Rated Input Voltage: 30Vpp
 Max Input Voltage: 40Vpp
 Blocking Force: Min. 0.15N
 Free Stroke: Min. 0.25mm
 Capacitance at 120Hz/25°C: $900 \pm 20\text{nF}$
 Operating Temperature Range: -20°C to +70°C
 Storage Temperature Range: -40°C to +85°C

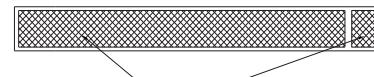
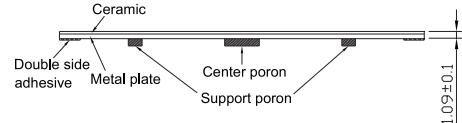
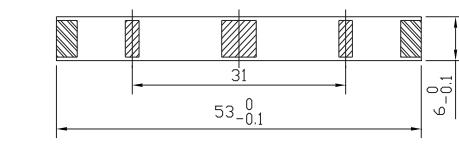
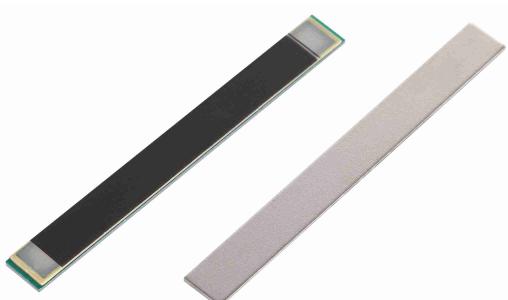


ML5306-G

Weight : 2.5g(nominal)



Size: $53 \times 6 \times 1.09\text{mm}$
 Rated Input Voltage: 24Vpp
 Max Input Voltage: 40Vpp
 Acceleration: Min. 10.5G@200Hz & 20ms & 24Vpp (sine wave)
 Current at 300Hz and Maximum Input Voltage: Max. 80mA
 Capacitance at 120Hz/25°C: Max. 3μF
 Operating Temperature Range: -20°C to +70°C
 Storage Temperature Range: -40°C to +85°C



Unit: mm

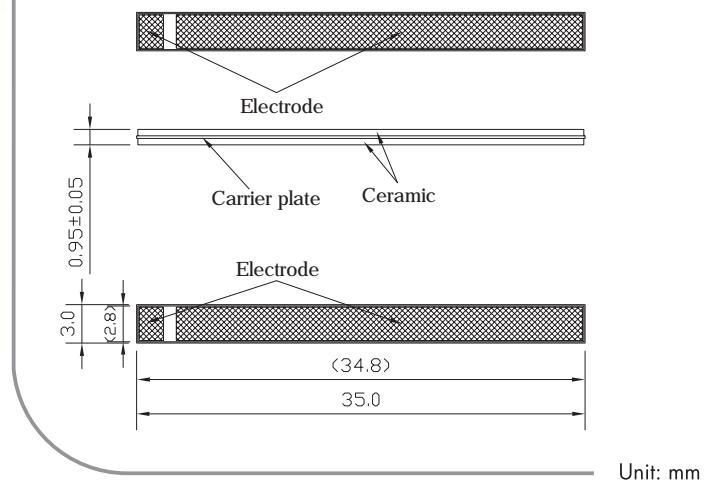


MLB3503-G

Weight : 0.7g(nominal)



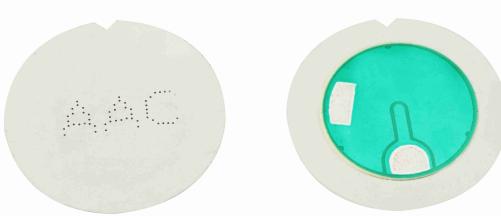
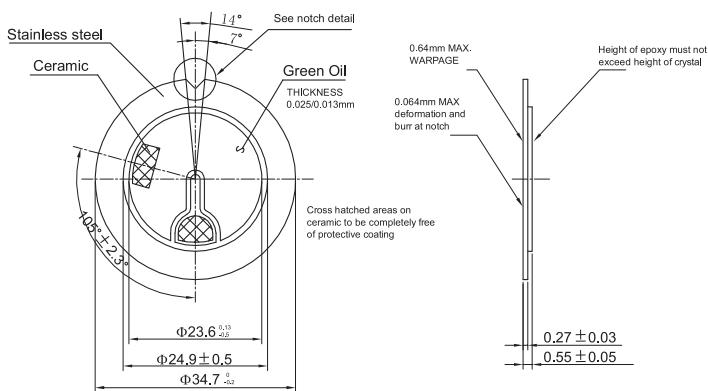
Size: 35 x 3 x 0.95mm
 Rated Input Voltage: 100Vpp
 Max Input Voltage: 120Vpp
 Blocking Force: Min. 0.15N
 Min. 0.25mm
 Free Stroke: 50nF
 Capacitance at 120Hz/25°C: -20°C to +70°C
 Operating Temperature Range: -40°C to +85°C
 Storage Temperature Range:



FT-35G-32B1

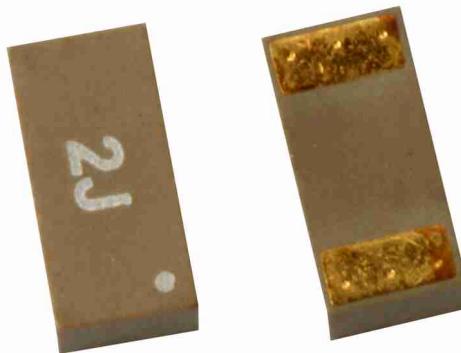
Weight : 3.05g(nominal)

Size: e34.7 x 0.58mm
 Resonant Frequency: 3.28±0.14kHz
 Resonant Impedance: 200Ω max
 Capacitance at 100Hz: 28nF±30%
 Resistance: 200MΩ Min
 Input Voltage(Square Wave): 40Vp-p





AT(2J)X05311NX

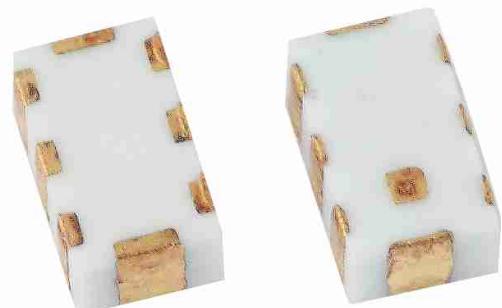


Operating Temperature:	-40°C ~ +85°C				
Center Frequency:	2450MHz				
Input Impedance:	50Ω				
Polarization:	Linear				
Frequency:	2400MHz	2420MHz	2450MHz	2480MHz	2500MHz
Gain: Peak:	0.5dBi(25°C)	1.8dBi(25°C)	1.8dBi(25°C)	1.7dBi(25°C)	0.8dBi(25°C)
Average:	-3dBi(25°C)	-1.8dBi(25°C)	-1.3dBi(25°C)	-1.4dBi(25°C)	-2.2dBi(25°C)
Efficiency:	50%	66.20%	74.40%	71.80%	60.30%
V.S.W.R@BW:	3.0 max				



BF24A4R218D8

Center Frequency(=Fc):	2450MHz
Pass Bandwidth(=BW):	±50MHz
Insertion Loss@ BW:	3.0dB max.
Unbalanced Impedance:	50Ω
Balanced Impedance:	100Ωm Conjugate matching to CSR BC04, 05, 06
V.S.W.R@BW(unbalanced port):	2.0 max.
Attenuation:	38dB min. @ 880~960MHz 30dB min. @ 1710~1910MHz 20dB min. @ 4800~5000MHz
Amplitude Balance:	±1.5dB
Phase Balance:	30°±10°
Power Capacity:	500mW
Operation Temperature Range:	-40°C to +85°C





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