

# HORN 深圳市豪恩实业有限公司

SHENZHEN HORN INDUSTRIAL CO., LTD.

SPEC. SHEET NO: 00011233

Address:  
BLOCK 1, DEHUINA INDUSTRIAL DISTRICT,  
MINGZHI RD LONGHUA, SHENZHEN,  
GUANGDONG, CHINA 518131

TEL: (86) 755-8192552 8190943  
FAX: (86) 755-8192557  
E-mail: szwwiner@public.szptt.net.cn  
HOME PAGE: www.globalsources.com/hornmic.co

**CUSTOMER: Digi-Key Corporation**

## APPROVE SHEET

PRODUCT NAME	TYPE	DIMENSION	
Electret Condenser Microphone	EM6050N-51	Ø6.0x5.0(mm)	

APPROVED :

李 军

DATE: 2000.11.25

CHECKED BY:

陈小康

DATE: 2000.11.25

ISSUED BY:

陈为波

DATE:



APPROVED BY:

DATE:

Address:  
BLOCK 1, DEHUINA INDUSTRIAL DISTRICT,  
MINGZHI RD LONGHUA, SHENZHEN,  
GUANGDONG, CHINA 518131

TEL: (86) 755-8192552 8190943  
FAX: (86) 755-8192557  
E-mail: szwwiner @ public.szptt.net.cn  
HOME PAGE: www.globalsources.com/hornmic.co

## Ambient condition

### (1) Operating condition

Ambient temperature:  $-10^{\circ}\text{C} \sim +45^{\circ}\text{C}$   
Relative humidity:  $\leq 85\%$

### (2) Storage condition

Ambient temperature:  $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$   
Relative humidity: 45%

## Reliability Test

### 1) Vibration Test

To be no interference in operation after vibration of full amplitude 2mm for 30 minutes at three axis, the sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity.

### 2) Drop test

To be no interference in operation after dropped to concrete floor each time from 1 meter height of three directions in state of packing, the sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity.

### 3) High Temperature Storage:

To be no interference in operation after high temperature test  $70^{\circ}\text{C} \pm 3^{\circ}\text{C}$  for 48 hours. The sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity.

### 4) Isotherm & Iso-humidity Storage

To be no interference in operation after storage test at temperature  $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$  and relative humidity ( $93\% \pm 2\sim 3\%$ ) for 48 hours, the sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity, the test is performed at temperature  $20^{\circ}\text{C}$  after operation for 2 hours.

### 5) Low Temperature Storage

To be no interference in operation after test at temperature  $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$  for 4 hours, the sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity

### 6) Temperature Cycle Test

After exposure at  $-55^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 30 minutes, at  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 10 minutes. at  $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 30 minutes, at  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 10 minutes, with 5 cycles. Change of sensitivity within  $\pm 3\text{dB}$  from initial measuring should be done after 2 hours exposed to  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ .

### 7) Collision Test

After collided with the acceleration  $100 \pm 10\text{m/s}$ , at the vertical & horizontal directions for  $1000 \pm 10$  times. at the state of packing. Change of sensitivity within  $\pm 3\text{dB}$  from initial.

# SHENZHEN HORN INDUSTRIAL CO.,LTD.

## PACKING LIST OF CONDENSER MICROPHONES

MODEL NO	DIMENSION (mm)	DIRECTIVITY	INNER PACKING (PCS)	MIDDLE PACKING (PCS)	CARTOON (PCS)	GROSS WEIGHT (Kg)	NET WEIGHT (Kg)
EM9765	9.7*6.5	Omni directional	100	1,000	10,000	10	9.5
EM9765P	9.7*6.5	Omni directional	N/G	400	4,000	5	4.5
EM9752U	9.7*5.2	Unidirectional	100	1,000	10,000	9.5	9
EN9752N	9.7*5.2	Noise Cancelling	100	1,000	10,000	9.5	9
EM9745	9.7*4.5	Omni directional	100	1,000	10,000	9	8.5
EM9745P	9.7*4.5	Omni directional	N/G	400	4,000	3.5	3
EM9465	9.4*6.5	Omni directional	100	1,000	10,000	9.5	9
EM9465P	9.4*6.5	Omni directional	N/G	400	4,000	4.5	4
EM8050U	8.0*5.0	Unidirectional	50	1,000	15,000	10	9.5
EM6050	6.0*5.0	Omni directional	100	2,000	30,000	10.5	10
EM6050P	6.0*5.0	Omni directional	100	1,000	10,000	3.5	3
EM6050U	6.0*5.0	Unidirectional	100	2,000	30,000	10.5	10
EM6050N	6.0*5.0	Noise Cancelling	100	2,000	30,000	10.5	10
EM6035	6.0*3.5	Omni directional	100	2,000	30,000	9.5	9
EM6027	6.0*2.7	Omni directional	100	2,000	30,000	7.5	7
EM6027PA	6.0*2.7	Omni directional	100	2,000	30,000	7.5	7
EM4530	4.5*3.0	Omni directional	100	2,000	30,000	6.5	6

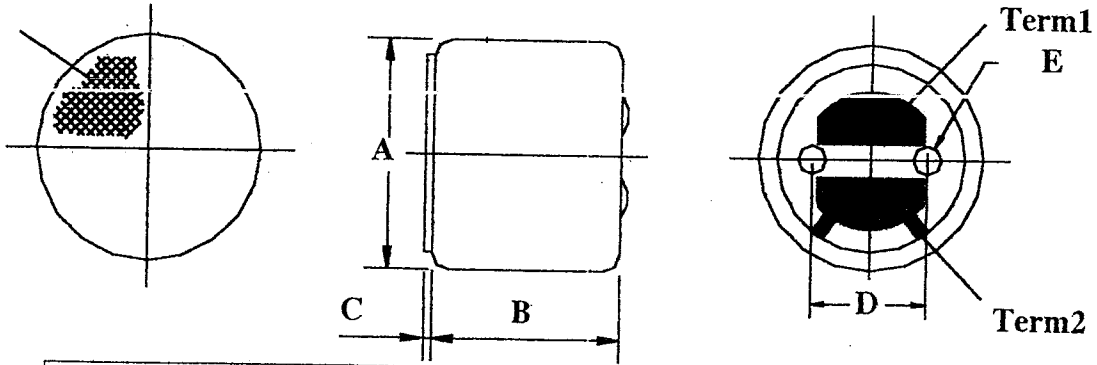
Address:  
 BLOCK 1, DEHUINA INDUSTRIAL DISTRICT,  
 MINGZHI RD LONGHUA, SHENZHEN,  
 GUANGDONG, CHINA 518131

TEL: (86) 755-8192552 8190943  
 FAX: (86) 755-8192557  
 E-mail: szwwiner@public.szptt.net.cn  
 HOME PAGE: www.globalsources.com/hornmic.co

**Dimensional Drawing**

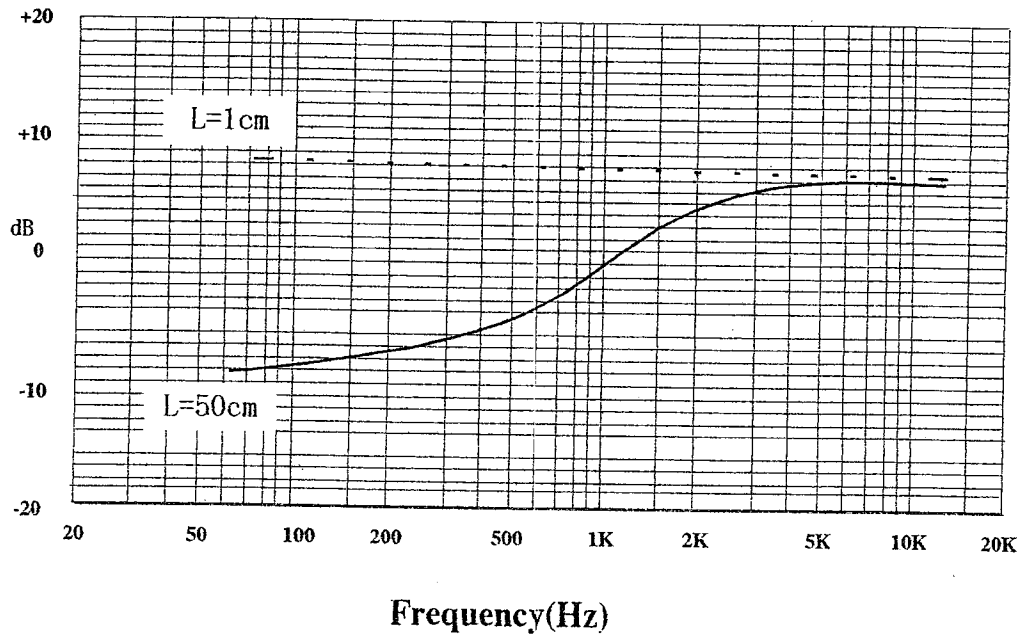
unit: mm

Filter



PART	MIN	TYPE	MAX	REMARK
A	Ø5.8	Ø6.0	Ø6.2	
B	4.8	5.0	5.2	
C	-	-	0.2	
D	2.8	3	3.2	
E	0.6	0.7	0.8	

**Typical Frequency Response Curve**



Address:  
BLOCK 1, DEHUINA INDUSTRIAL DISTRICT,  
MINGZHI RD LONGHUA, SHENZHEN,  
GUANGDONG, CHINA 518131

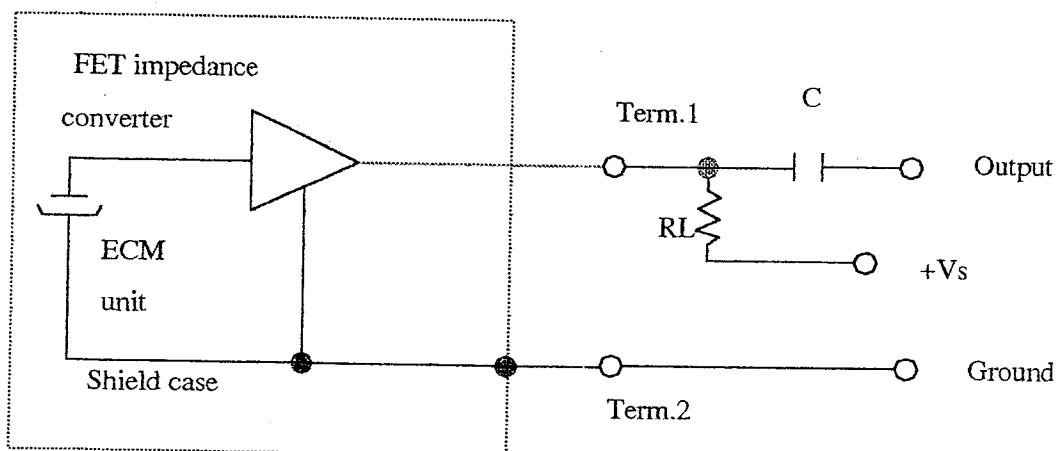
TEL: (86) 755-8192552 8190943  
FAX: (86) 755-8192557  
E-mail: szwwiner@public.szptt.net.cn  
HOME PAGE: www.globalsources.com/hornmic.co

## SPECIFICATION

Item	Symbol	Test conditions	Min	Standard	Max	Unit
Sensitivity	S	f=1KHz. Pin=1pa	-55	-51	-47	dB <small>0dB=1Vpa</small>
Directivity	Noise canceling					
Impedance	Zout				2.2	KΩ
Current consumption	I	f=1KHz. Pin=1pa			500	uA
Sensitivity reduction	ΔS	f=1KHz. Pin=1pa. Vs=1.5→1V			-3	dB
S/N ratio	S/N(A)	f=1KHz. Pin=1pa. A=curve	58			dB

### Measurement Circuit (Test Condition Vs=2V RL=2.2KΩ

Ta=20°C R.H=65%)



# HORN Shenzhen Horn Industrial Co., Ltd.

## Explanation of Part Number

### Explanation of Part Number

