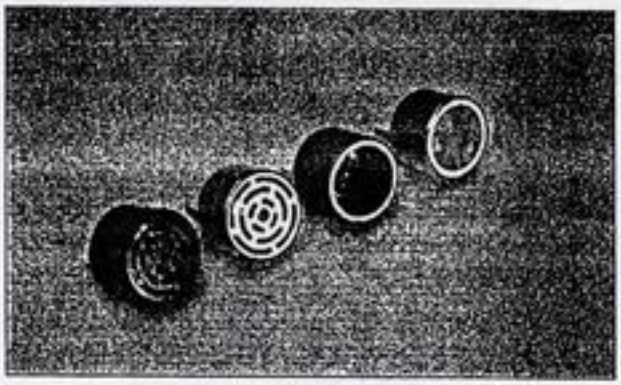
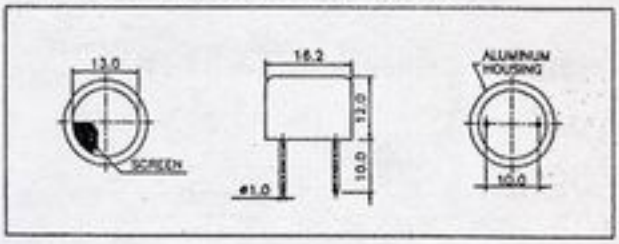


Dimensions: dimensions are in mm



Specification

250ST160		Transmitter
250SR160		Receiver
Center Frequency		25.0±1.0Khz
Bandwidth (-6dB)	250ST160	2.0Khz
	250SR160	2.0Khz
Transmitting Sound Pressure Level at 25.0Khz; 0dB re 0.0002μbar per 10Vrms at 30cm		112dB min.
Receiving Sensitivity at 25.0Khz 0dB = 1 volt/μbar		-62dB min.
Capacitance at 1Khz	±20%	2400 pF
Max. Driving Voltage (cont.)		20Vrms
Total Beam Angle	-6dB	85° typical
Operation Temperature		-30 to 80°C
Storage Temperature		-40 to 85°C

All specification taken typical at 25°C
Closer frequency tolerance can be supplied upon request.

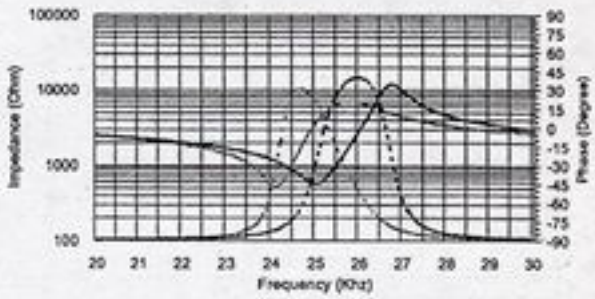
Model available:

1	250ST/R160	Aluminum Housing
2	250ST/R16B	Black Al. Housing
3	250ST/R16F	Al. Housing w/Solid Grid
4	250ST/R16P	Plastic Housing

Impedance/Phase Angle vs. Frequency

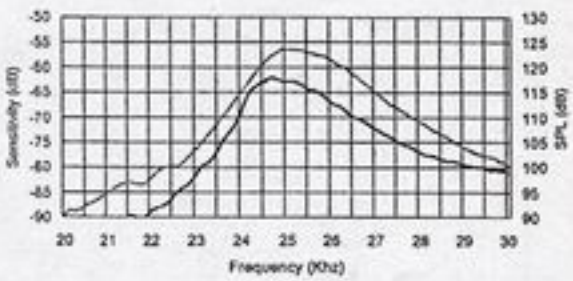
Tested under 1Vrms Oscillation Level

250SR160 Impedance
250SR160 Phase
250ST160 Impedance
250ST160 Phase

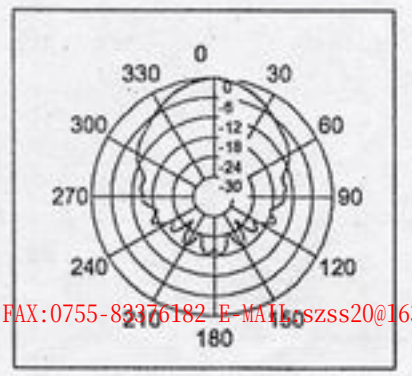


Sensitivity/Sound Pressure Level

Tested under 10Vrms @30cm

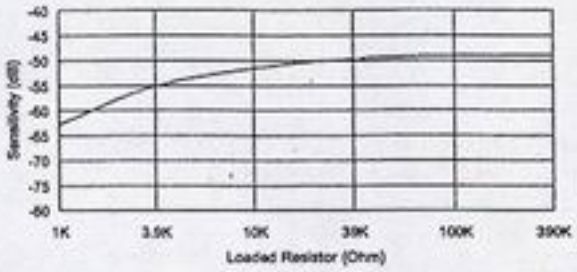


Beam Angle: Tested at 25.0Khz frequency

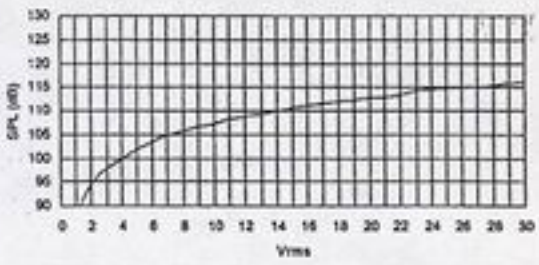


250SR160 Receiver 250ST160 Transmitter

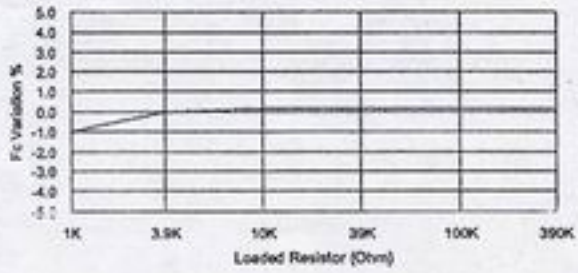
Sensitivity Variation vs. Loaded Resistor



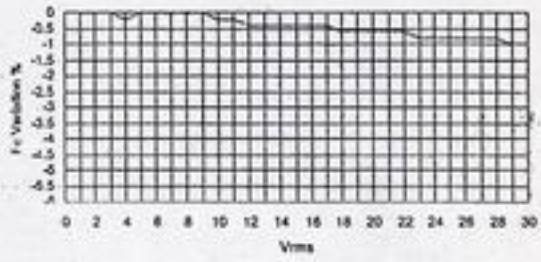
SPL Variation vs. Driving Voltage



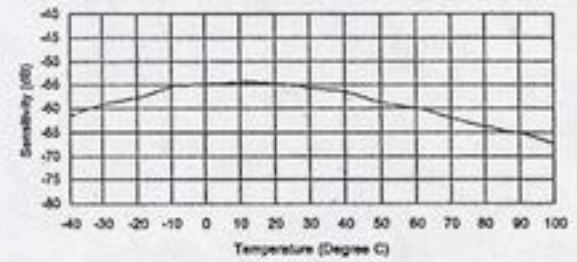
Center Frequency Shift vs. Loaded Resistor



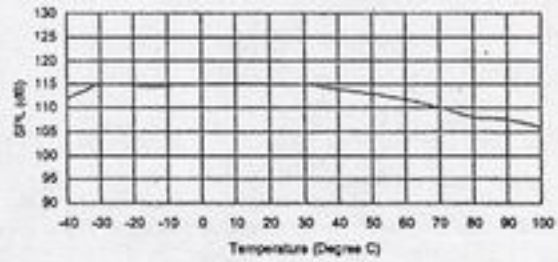
Center Frequency Shift vs. Driving Voltage



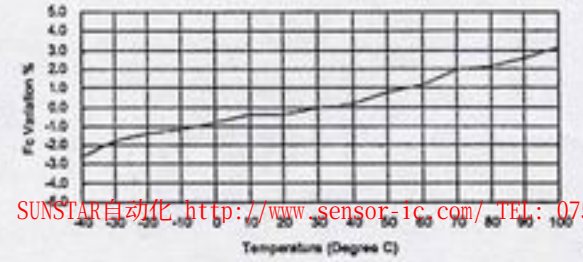
Sensitivity Variation vs. Temperature



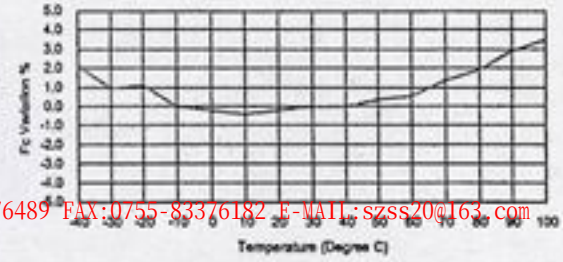
SPL Variation vs. Temperature

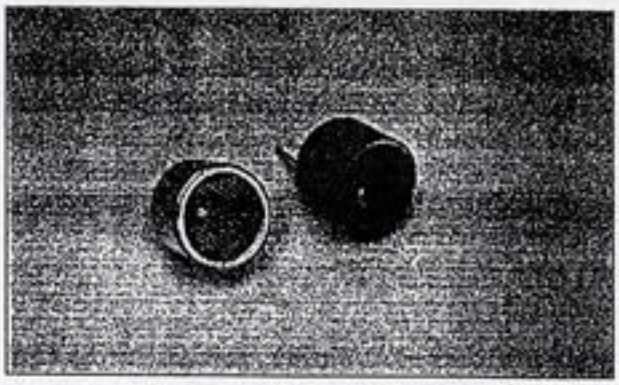


Center Frequency Shift vs. Temperature

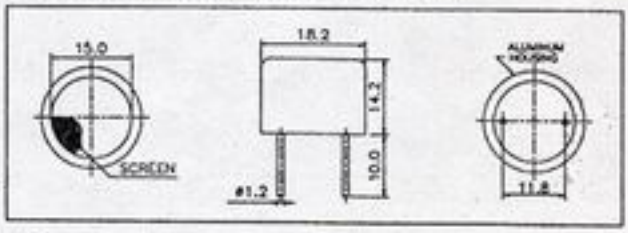


Center Frequency Shift vs. Temperature





Dimensions: dimensions are in mm



Impedance/Phase Angle vs. Frequency

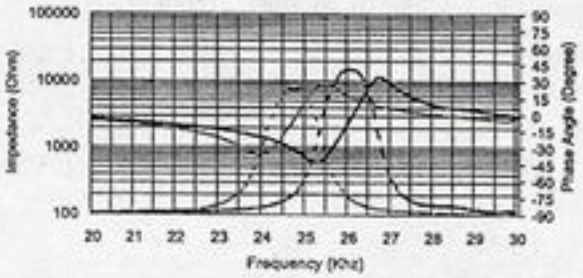
Tested under 1Vrms Oscillation Level

250SR180 Impedance ——————

250SR180 Phase - - - - - - -

250ST180 Impedance ——————

250ST180 Phase - - - - - - -



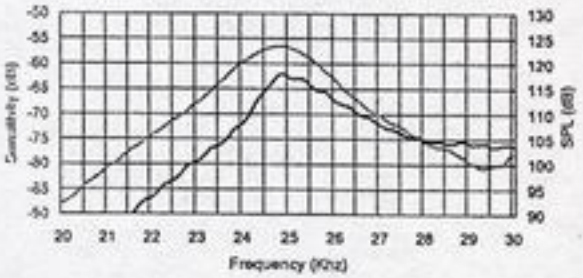
Specification

250ST180		Transmitter
250SR180		Receiver
Center Frequency		25.0±1.0Khz
Bandwidth (-6dB)	250ST180	1.5Khz
	250SR180	1.8Khz
Transmitting Sound Pressure Level at 25.0Khz; 0dB re 0.0002μbar per 10Vrms at 30cm		112dB min.
Receiving Sensitivity at 25.0Khz 0dB = 1 volt/μbar		-62dB min.
Capacitance at 1Khz	±20%	2400 pF
Max. Driving Voltage (cont.)		20Vrms
Total Beam Angle	-6dB	95° typical
Operation Temperature		-30 to 80°C
Storage Temperature		-40 to 85°C

All specification taken typical at 25°C
Closer frequency tolerance can be supplied upon request.

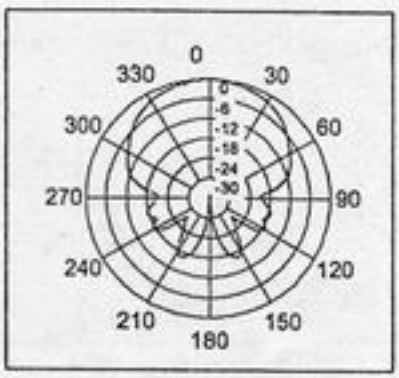
Sensitivity/Sound Pressure Level

Tested under 10Vrms @30cm



Beam Angle

Tested at 25.0Khz frequency

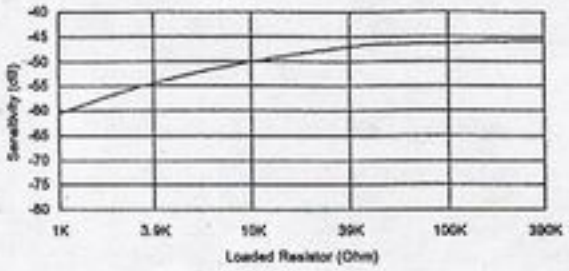


Model available:

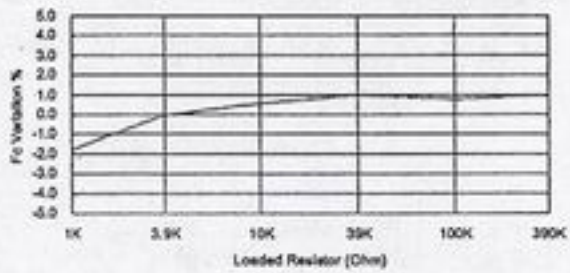
1	250ST/R180	Aluminum Housing
2	250ST/R18B	Black Al. Housing

250SR180 Receiver

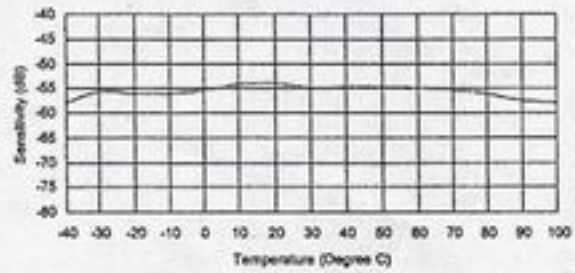
Sensitivity Variation vs. Loaded Resistor



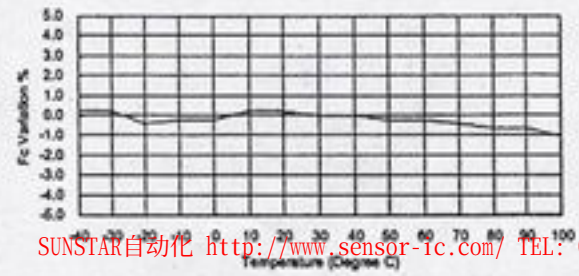
Center Frequency Shift vs. Loaded Resistor



Sensitivity Variation vs. Temperature

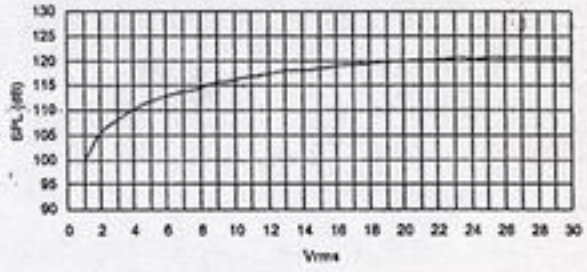


Center Frequency Shift vs. Temperature

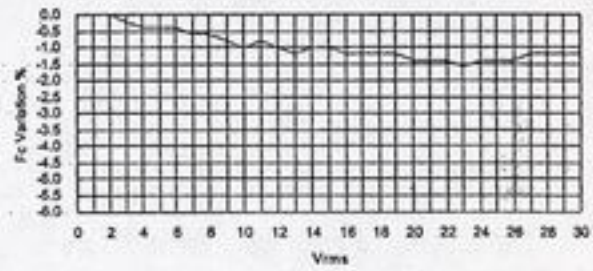


250ST180 Transmitter

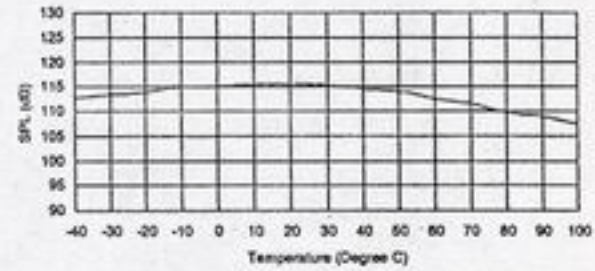
SPL Variation vs. Driving Voltage



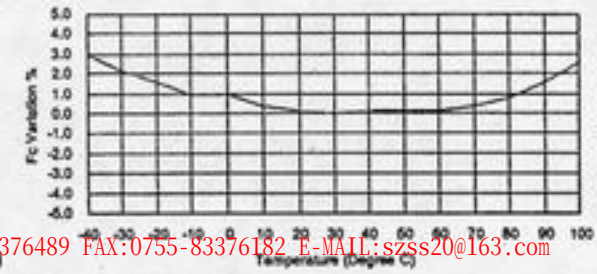
Center Frequency Shift vs. Driving Voltage



SPL Variation vs. Temperature

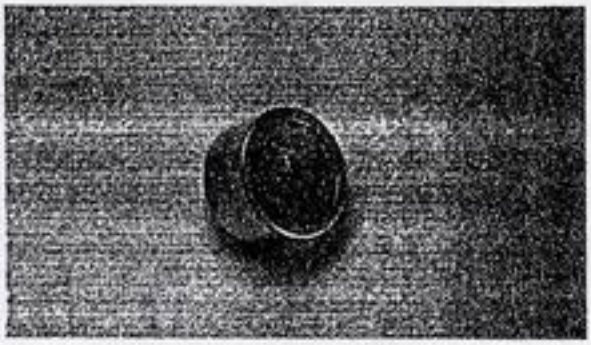


Center Frequency Shift vs. Temperature

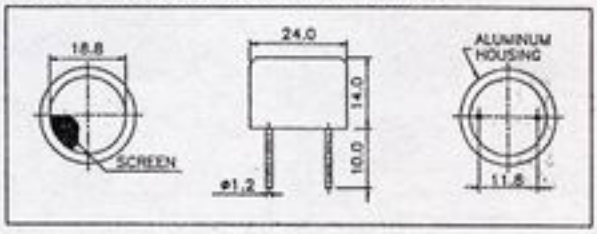


Air Ultrasonic Ceramic Transducers

250ST/R240



Dimensions: dimensions are in mm



Impedance/Phase Angle vs. Frequency

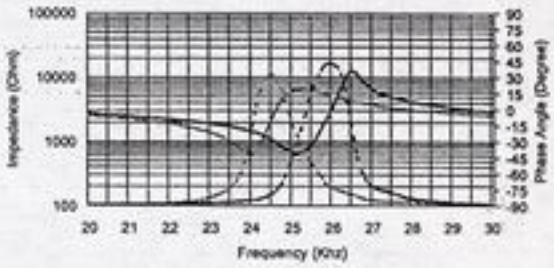
Tested under 1Vrms Oscillation Level

250SR240 Impedance ——————

250SR240 Phase - - - - - - - -

250ST240 Impedance ——————

250ST240 Phase - - - - - - - -

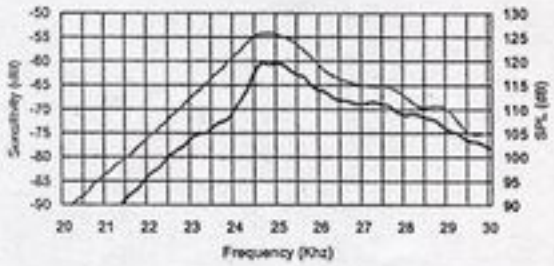


Specification

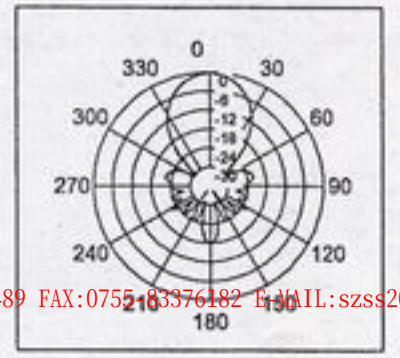
250ST240		Transmitter
250SR240		Receiver
Center Frequency		25.0±1.0Khz
Bandwidth (-6dB)	250ST240	1.5Khz
	250SR240	1.8Khz
Transmitting Sound Pressure Level at 25.0Khz; 0dB re 0.0002μbar per 10Vrms at 30cm		115dB min.
Receiving Sensitivity at 25.0Khz 0dB = 1 volt/μbar		-60dB min.
Capacitance at 1Khz	±20%	2400 pF
Max. Driving Voltage (cont.)		20Vrms
Total Beam Angle	-6dB	45° typical
Operation Temperature		-30 to 80°C
Storage Temperature		-40 to 85°C

Sensitivity/Sound Pressure Level

Tested under 10Vrms @30cm



Beam Angle: Tested at 25.0Khz frequency



All specification taken typical at 25°C
Closer frequency tolerance can be supplied upon request.

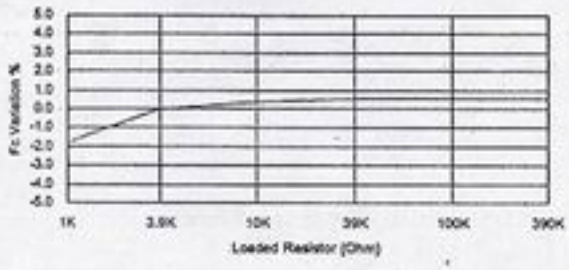
Model available:

1	250ST/R240	Aluminum Housing

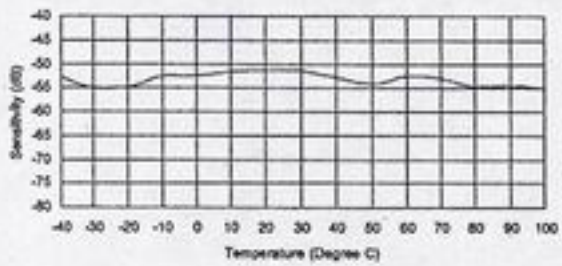
250SR240 Receiver

Sensitivity Variation vs. Loaded Resistor

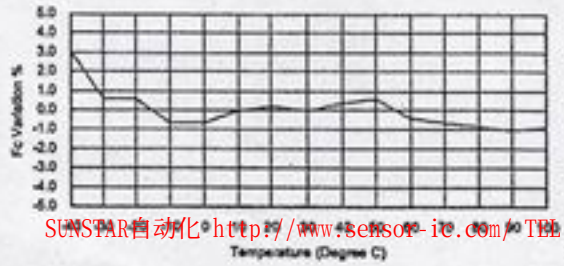
Center Frequency Shift vs. Loaded Resistor



Sensitivity Variation vs. Temperature

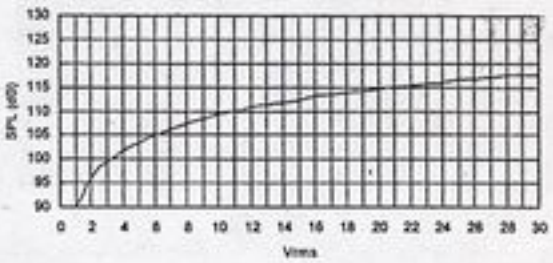


Center Frequency Shift vs. Temperature

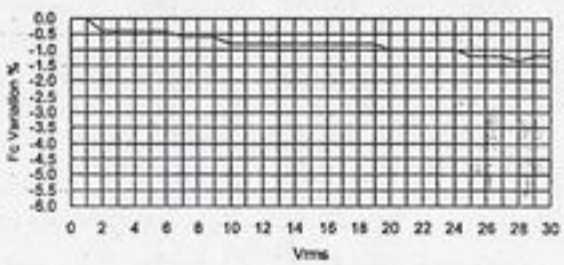


250ST240 Transmitter

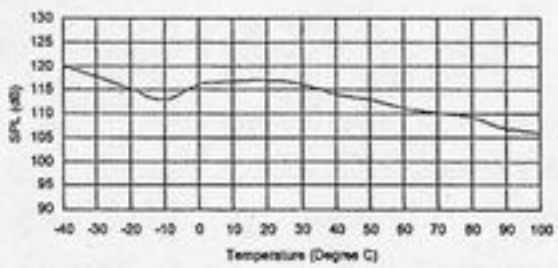
SPL Variation vs. Driving Voltage



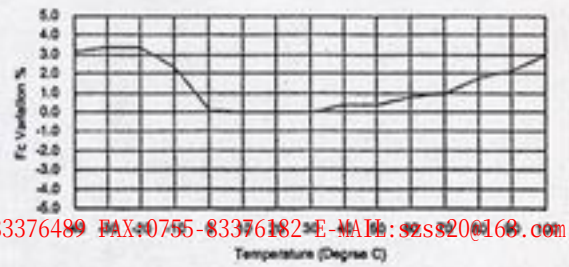
Center Frequency Shift vs. Driving Voltage

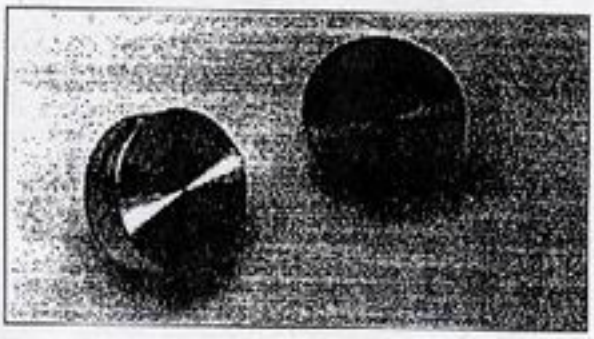


SPL Variation vs. Temperature

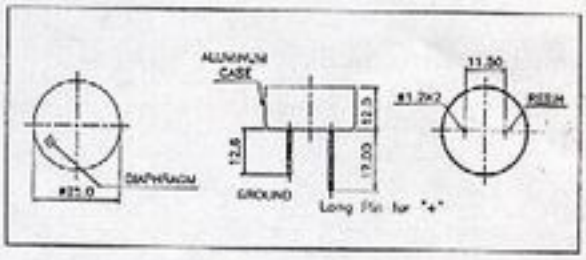


Center Frequency Shift vs. Temperature





Dimensions: dimensions are in mm



Specification

250ET250		Transmitter
250ER250		Receiver
Center Frequency		25.0 ± 1.0Khz
Bandwidth (-6dB)	250ET250	1.0Khz
	250ER250	1.0Khz
Transmitting Sound Pressure Level at 25.0Khz; 0dB re 0.0002μbar per 10Vrms at 30cm		113dB min.
Receiving Sensitivity at 25.0Khz 0dB = 1 volt/μbar		-63dB min.
Capacitance at 1Khz	±20%	2400 pF
Max. Driving Voltage (cont.)		15Vrms
Total Beam Angle	-6dB	40° typical
Operation Temperature		-30 to 80°C
Storage Temperature		-40 to 85°C

All specification taken typical at 25°C
Closer frequency tolerance can be supplied upon request.

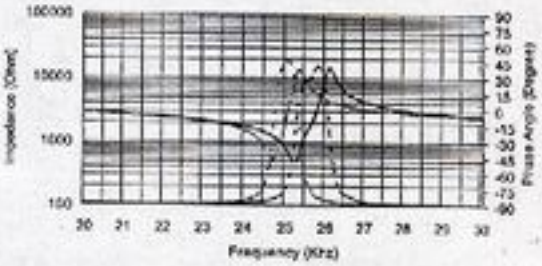
Model available:

1	250ET/R250	Aluminum Housing
2	250ET/R25B	Black Al. Housing

Impedance/Phase Angle vs. Frequency

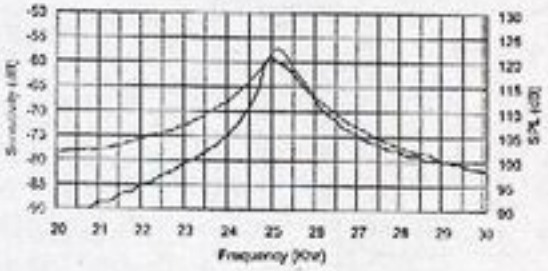
Tested under 1Vrms Oscillation Level

250ER250 Impedance
250ER250 Phase
250ET250 Impedance
250ET250 Phase

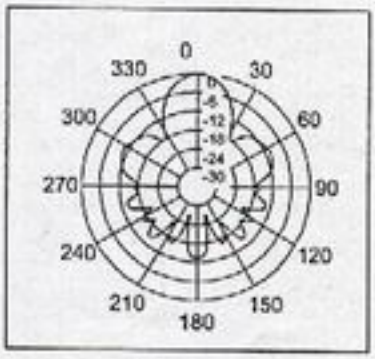


Sensitivity/Sound Pressure Level

Tested under 10Vrms @30cm

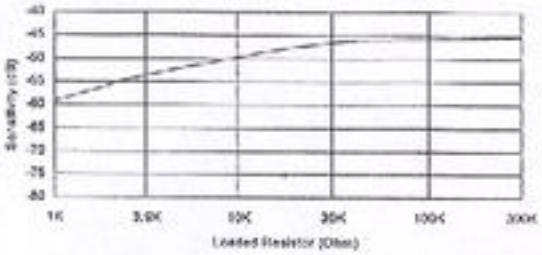


Beam Angle: Tested at 25.0Khz frequency

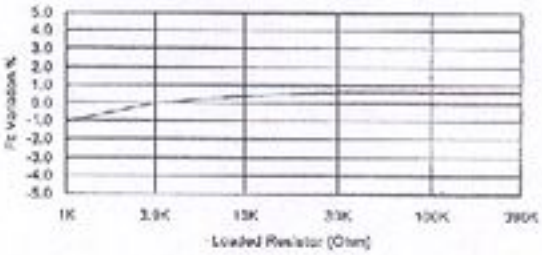


250ER250 Receiver

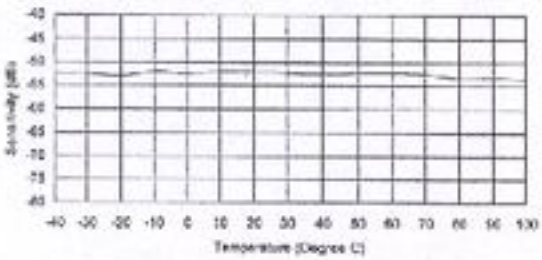
Sensitivity Variation vs. Loaded Resistor



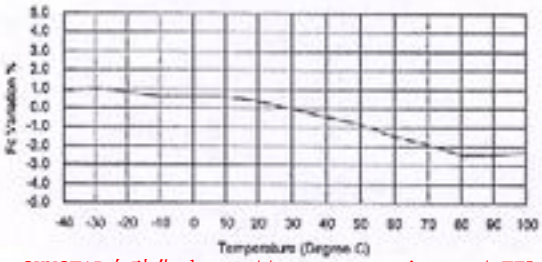
Center Frequency Shift vs. Loaded Resistor



Sensitivity Variation vs. Temperature

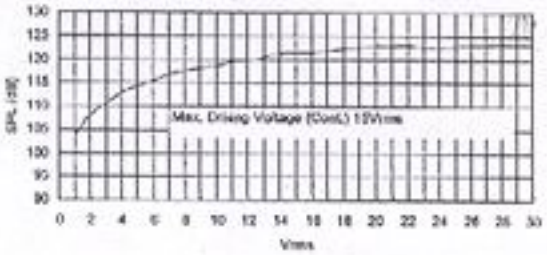


Center Frequency Shift vs. Temperature

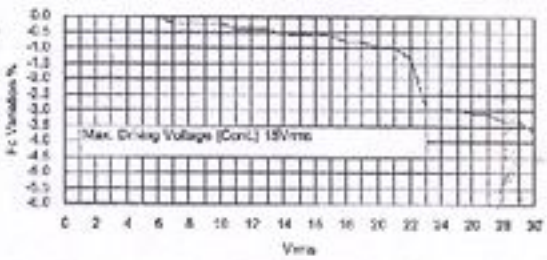


250ET250 Transmitter

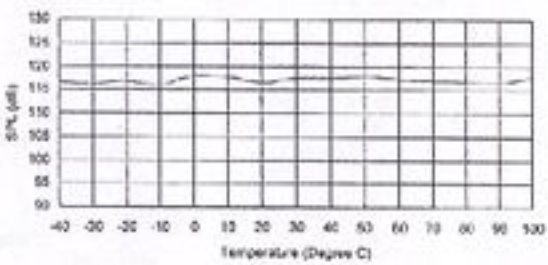
SPL Variation vs. Driving Voltage



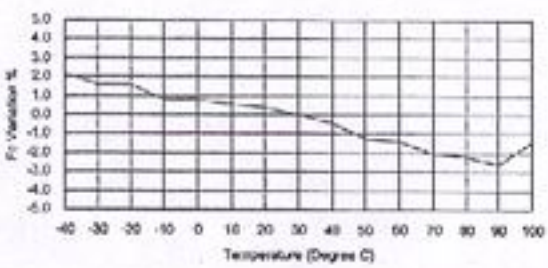
Center Frequency Shift vs. Driving Voltage



SPL Variation vs. Temperature



Center Frequency Shift vs. Temperature



SUNSTAR商斯达实业集团是集研发、生产、工程、销售、代理经销 、技术咨询、信息服务等为一体的高科技企业，是专业高科技电子产品生产厂家，是具有 10 多年历史的专业电子元器件供应商，是中国最早和最大的仓储式连锁规模经营大型综合电子零部件代理分销商之一,是一家专业代理和分銷世界各大品牌IC芯片和電子元器件的连锁经营綜合性国际公司。在香港、北京、深圳、上海、西安、成都等全国主要电子市场设有直属分公司和产品展示展销窗口门市部专卖店及代理分销商，已在全国范围内建成强大统一的供货和代理分销网络。 我们专业代理经销、开发生产电子元器件、集成电路、传感器、微波光电元器件、工控机/DOC/DOM电子盘、专用电路、单片机开发、MCU/DSP/ARM/FPGA软件硬件、二极管、三极管、模块等，是您可靠的一站式现货配套供应商、方案提供商、部件功能模块开发配套商。**专业以现代信息产业（计算机、通讯及传感器）三大支柱之一的传感器为主营业务，专业经营各类传感器的代理、销售生产、网络信息、科技图书资料及配套产品设计、工程开发。我们的专业网站——中国传感器科技信息网（全球传感器数据库） www.SENSOR-IC.COM 服务于全球高科技生产商及贸易商，为企业科技产品开发提供技术交流平台。欢迎各厂商互通有无、交换信息、交换链接、发布寻求代理信息。欢迎国外高科技传感器、变送器、执行器、自动控制产品厂商介绍产品到 中国，共同开拓市场。**本网站是关于各种传感器-变送器-仪器仪表及工业自动化大型专业网站,深入到工业控制、系统工程计 测计量、自动化、安防报警、消费电子等众多领域，把最新的传感器-变送器-仪器仪表买卖信息,最新技术供求,最新采购商,行业动态，发展方向，最新的技术应用和市场资讯及时的传递给广大科技开发、科学研究、产品设计人员。本网站已成功为石油、化工、电力、医药、生物、航空、航天、国防、能源、冶金、电子、工业、农业、交通、汽车、矿山、煤炭、纺织、信息、通信、IT、安防、环保、印刷、科研、气象、仪器仪表等领域从事科学研究、产品设计、开发、生产制造的科技人员、管理人员 、和采购人员提供满意服务。 **我公司专业开发生产、代理、经销、**销售各种传感器、变送器、敏感元器件、开关、执行器、仪器仪表、自动化控制系统： 专门从事设计、生产、销售各种传感器、变送器、各种测控仪表、热工仪表、现场控制器、计算机控制系统、数据采集系统、各类环境监控系统、专用控制系统应用软件以及嵌入式系统开发及应用等工作。如热敏电阻、压敏电阻、温度传感器、温度变送器、湿度传感器、 湿度变送器、气体传感器、 气体变送器、压力传感器、 压力变送、称重传感器、物（液）位传感器、物（液）位变送器、流量传感器、 流量变送器、电流（压）传感器、溶氧传感器、霍尔传感器 、图像传感器、超声波传感器、位移传感器、速度传感器、加速度传感器、扭距传感器、红外传感器、紫外传感器、 火焰传感器、激光传感器、振动传感器、轴角传感器、光电传感器、接近传感器、干簧管传感器、继电器传感器、微型电泵、磁敏（阻）传感器 、压力开关、接近开关、光电开关、色标传感器、光纤传感器、齿轮测速传感器、 时间继电器、计数器、计米器、温控仪、固态继电器、调压模块、电磁铁、电压表、电流表等特殊传感器 。 同时承接传感器应用电路、产品设计和自动化工程项目。

更多产品请看本公司产品专用销售网站:
商斯达中国传感器科技信息网：http://www.sensor-ic.com/
商斯达工控安防网：http://www.pc-ps.net/
商斯达电子 元器件网：http://www.sunstare.com/
商斯达微波光电产品网:HTTP://www.rfoe.net/
商斯达消费电子产品网://www.icasic.com/
商斯达军工产品网:http://www.junpinic.com/
商斯达实业科技产品网://www.sunstars.cn/传感器销售热线：
地址：深圳市福田区福华路福庆街鸿图大厦 1602 室
电话：0755-83607652 83376489 83376549 83370250 83370251 82500323
传真：0755-83376182 （0）13902971329 MSN: SUNS8888@hotmail.com
邮编：518033 E-mail:szss20@163.com QQ: 195847376
深圳赛格展销部：深圳华强北路赛格电子市场 2583 号 电话：0755-83665529 25059422
技术支持：0755-83394033 13501568376
欢迎索取免费详细资料、设计指南和光盘 ；产品凡多，未能尽录，欢迎来电查询。
北京分公司：北京海淀区知春路 132 号中发电子大厦 3097 号
TEL：010-81159046 82615020 13501189838 FAX：010-62543996
上海分公司：上海市北京东路 668 号上海賽格电子市场 D125 号
TEL：021-28311762 56703037 13701955389 FAX：021-56703037
西安分公司：西安高新开发区 20 所(中国电子科技集团导航技术研究所)
西安劳动南路 88 号电子商城二楼 D23 号
TEL：029-81022619 13072977981 FAX:029-88789382