

# SPECIFICATIONS

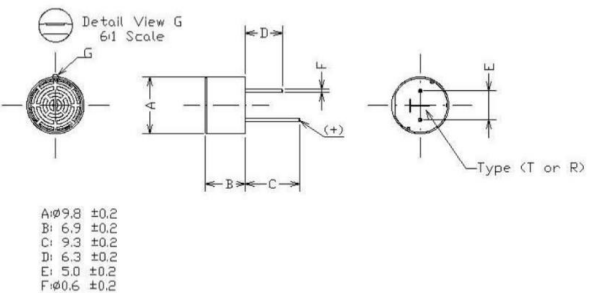
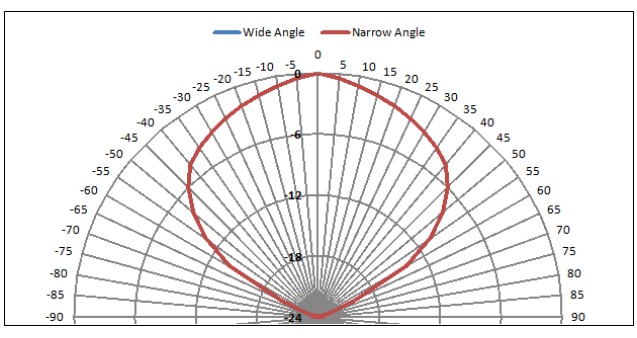
## ULTRASONIC TRANSDUCER

# ST-502P-T/R

Prepared	Check	Approved

Issued Date	2011-04-25	Revision Date	2013-09-01
Supplier	SensorTec	Customer	LGE
Classification	Robot, IoT	Status	Mass Production
Application			

Clean-up Robot, Self-driving

Dimension	Directivity (Typ.)
 <p>             A: <math>\varnothing 9.8 \pm 0.2</math>              B: <math>6.9 \pm 0.2</math>              C: <math>9.3 \pm 0.2</math>              D: <math>6.3 \pm 0.2</math>              E: <math>5.0 \pm 0.2</math>              F: <math>\varnothing 0.6 \pm 0.2</math> </p>	

Item	Min	Typ	Max	Unit	Description
Operating Frequency	39	40	41	kHz	
Detectable Range	0.3		2.0	m	
Sound Pressure Level (TX)	112			dB	
Receiving Sensitivity (RX)	-72			dB	
Directivity	80	90	100	Deg	-6dB down angle from front side O/S
Capacitance	1680	2100	2520	pF	@1kHz
Insulation Resistance	100			MΩ	@100V DC
Maximum Input Voltage	100			Vp-p	@0.25ms on/60ms off
Operating Temperature	-30		80	°C	
Storage Temperature	-30		80	°C	

### Note