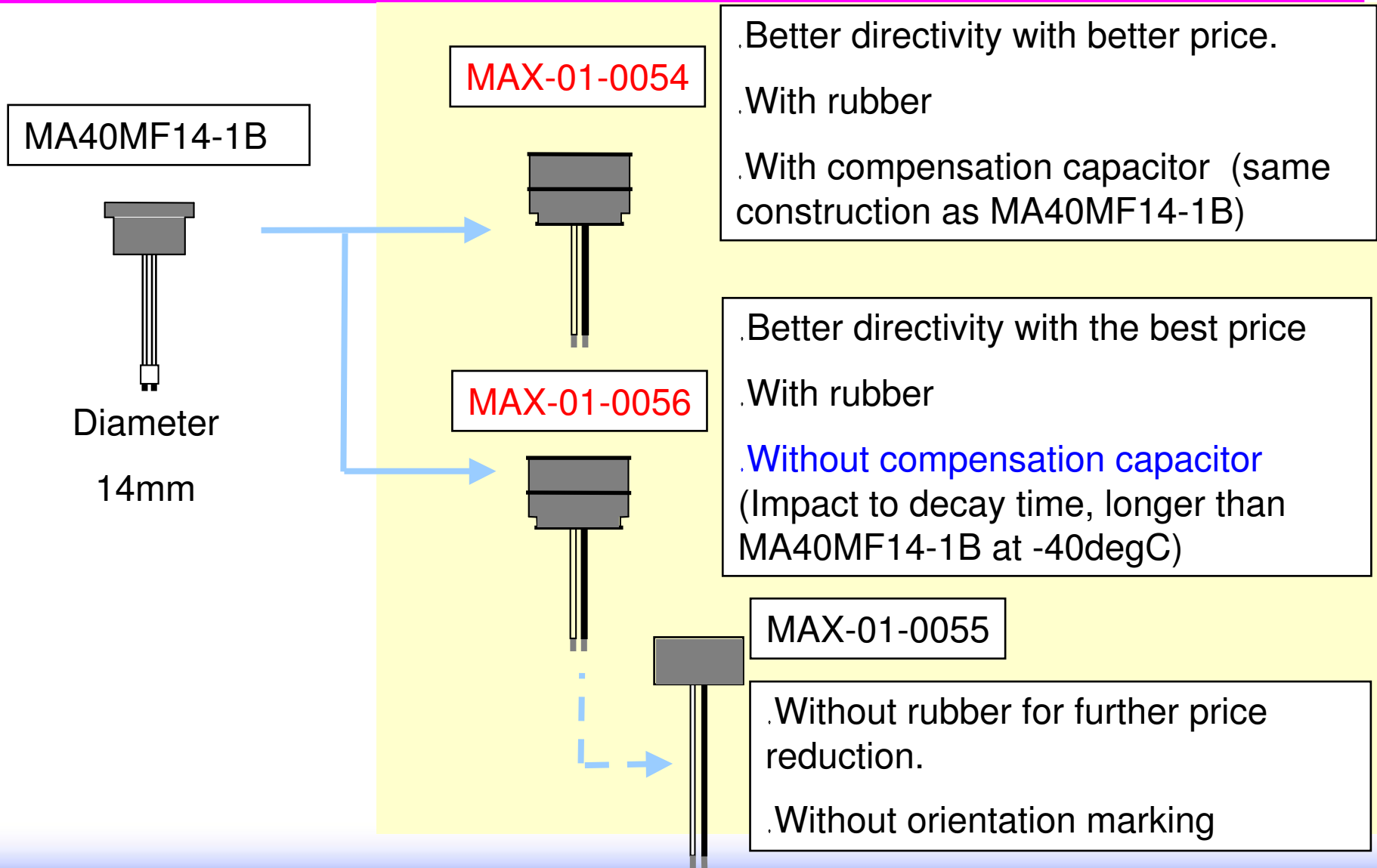

Ultrasonic sensor New product

- Better performance with reasonable cost -

- Sensor-Module department
 - ..Circuit-Module product division
- MURATA Manufacturing Co.,Ltd.

New Product line-up (summary)



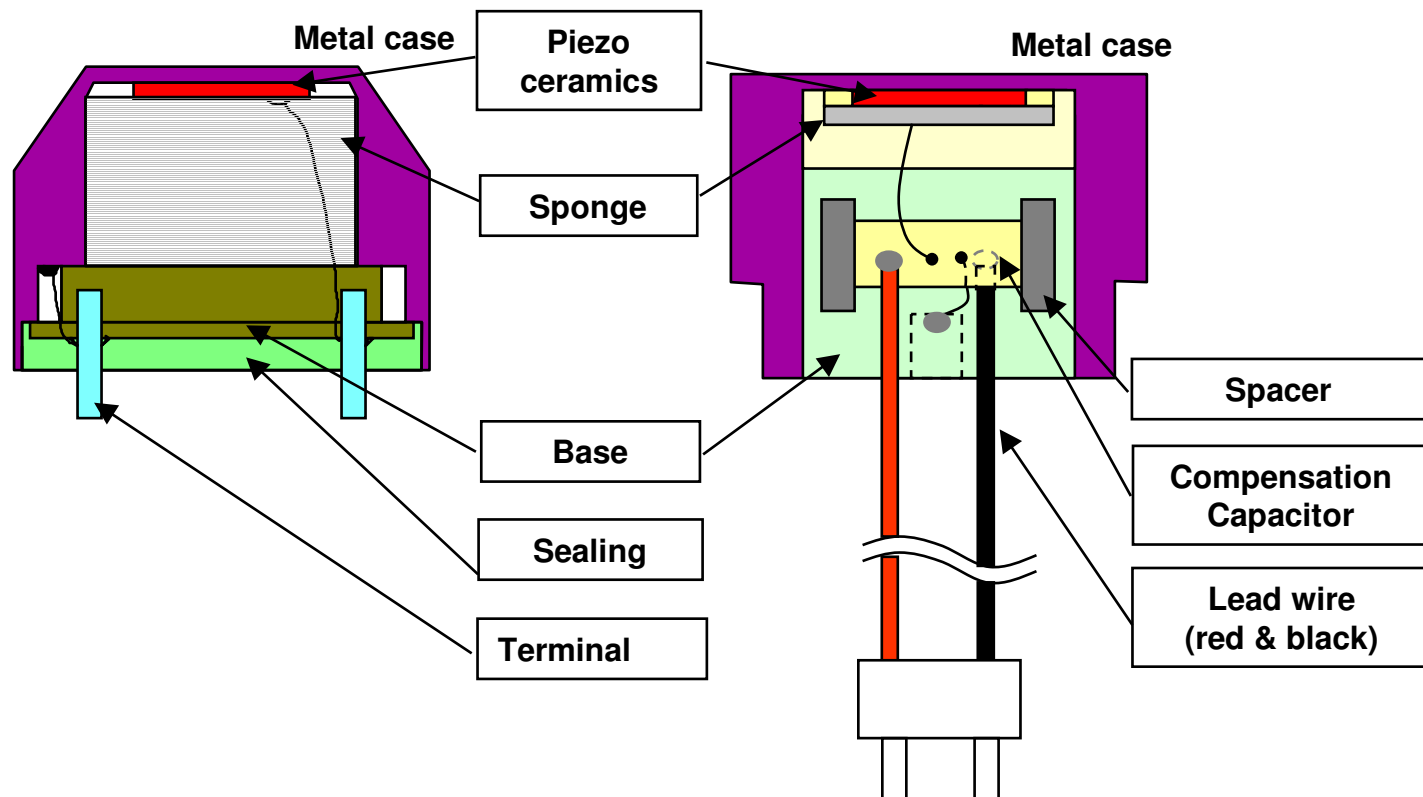
Current model (Murata standard)

Water proof type (Cone-type)

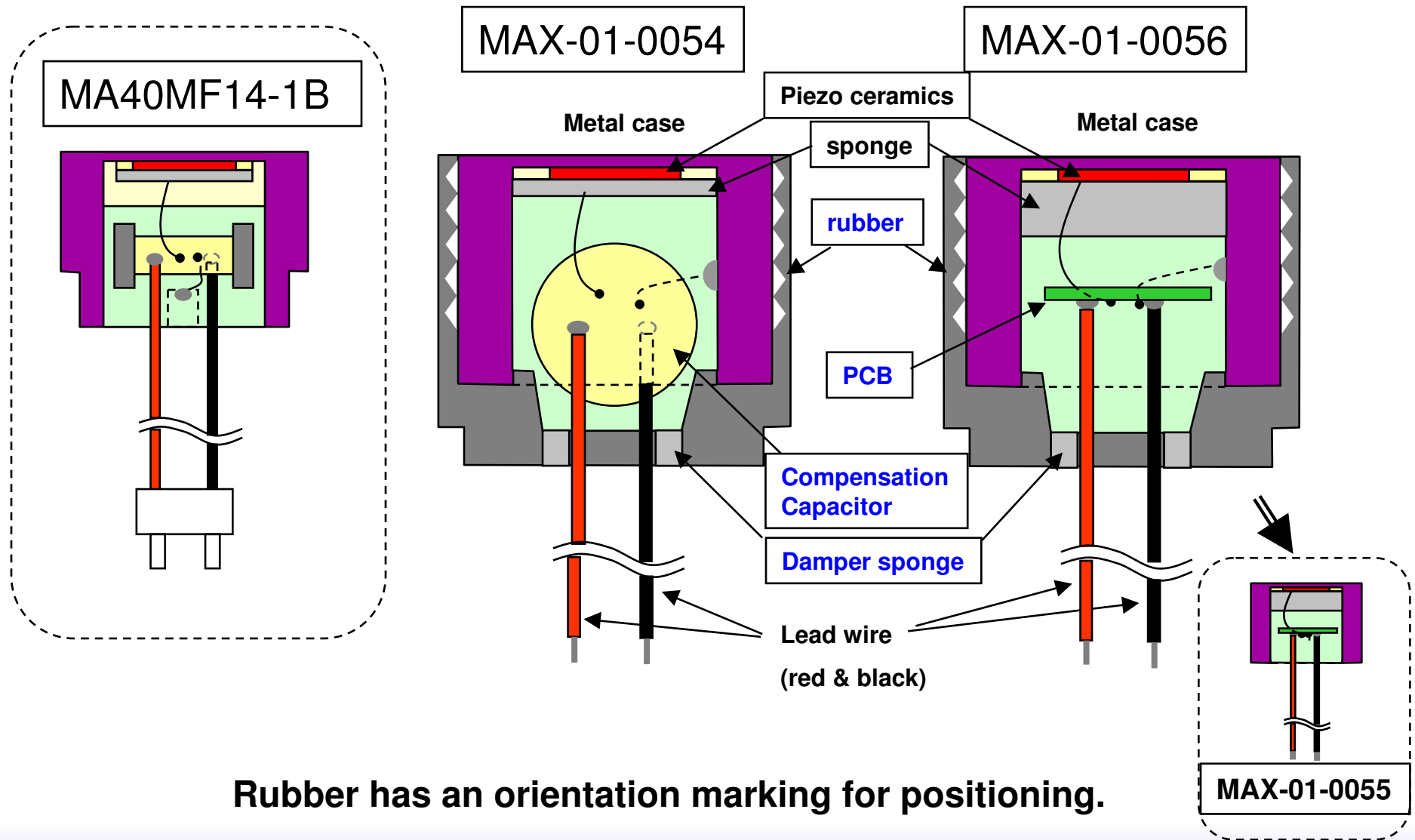
P/N : MA40E7S-1

Water proof type (Flat-type)

P/N : MA40E9-1 & MA40MF14-1B



New models



The feature of new sensor

- Why are new models lower price? -



The summary of construction difference

P/N	MA40MF14-1B	MAX-01-0054	MAX-01-0056	MAX-01-0055
Aluminum case	Cutting (Lathe)	Forging	Forging	Forging
Comp. Cap.	Used (Chip).	Used (Disk)	None	None
Connector	Used	None	None	None
Rubber.. None	Used	Used	None	
Side-cut on AL case	Used	None	None	None

Blue character means cost down tendency. (Positive for cost reduction)

Red does toward cost up. (But, must be needed, anyway!!)

Comments

.The Forging case has no side-cut for orientation, although the Cutting case has. Therefore, Murata let Rubber have orientation marking.

.Murata recommends to use Murata standard Rubber to keep cost reduction.

The feature of new sensor - What improved? -



The Specification comparison table

P/N	MA40MF14-1B	MAX-01-0054	MAX-01-0056	MAX-01-0055
S.P.L.	108dB	109dB	109dB	109dB
Overall Sensitivity	-83dB	-82dB	-82dB	-82dB
Capacitance	4400pF	3700pF	2300pF	2300pF
Directivity	110 x 50deg	110 x 45deg	110 x 45deg	110 x 45deg
Decay time	1.00ms	1.00ms	1.00ms	1.00ms
Decay time max. at -40 to 85 degC	1.20ms	1.20ms	1.40ms	1.40ms

. Blue character means “improved”, red means “degrade” with further low price.

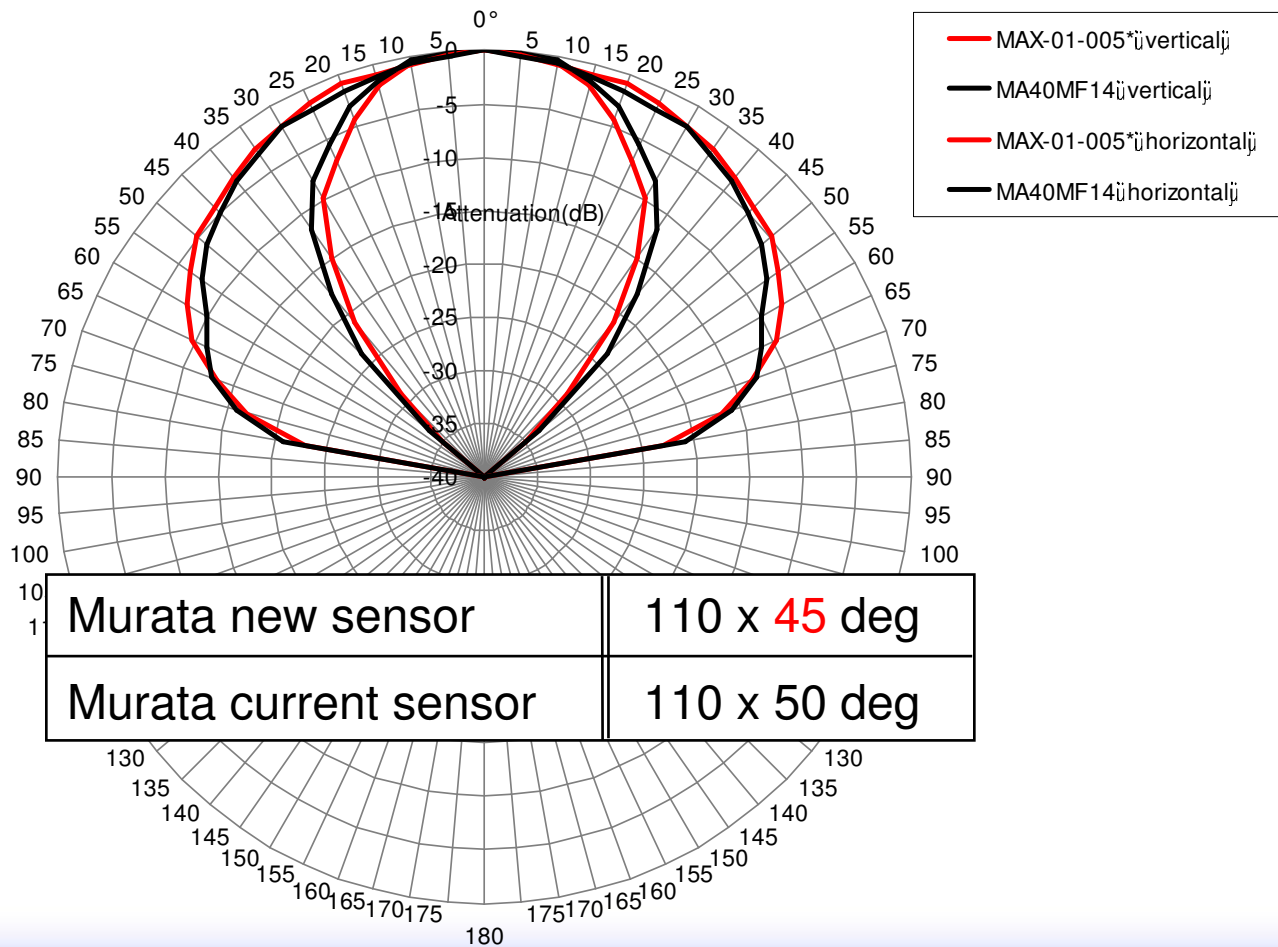
.S.P.L., Overall sensitivity and Directivity of all new models are improved!

The feature of new sensor

- How much directivity is improved? -



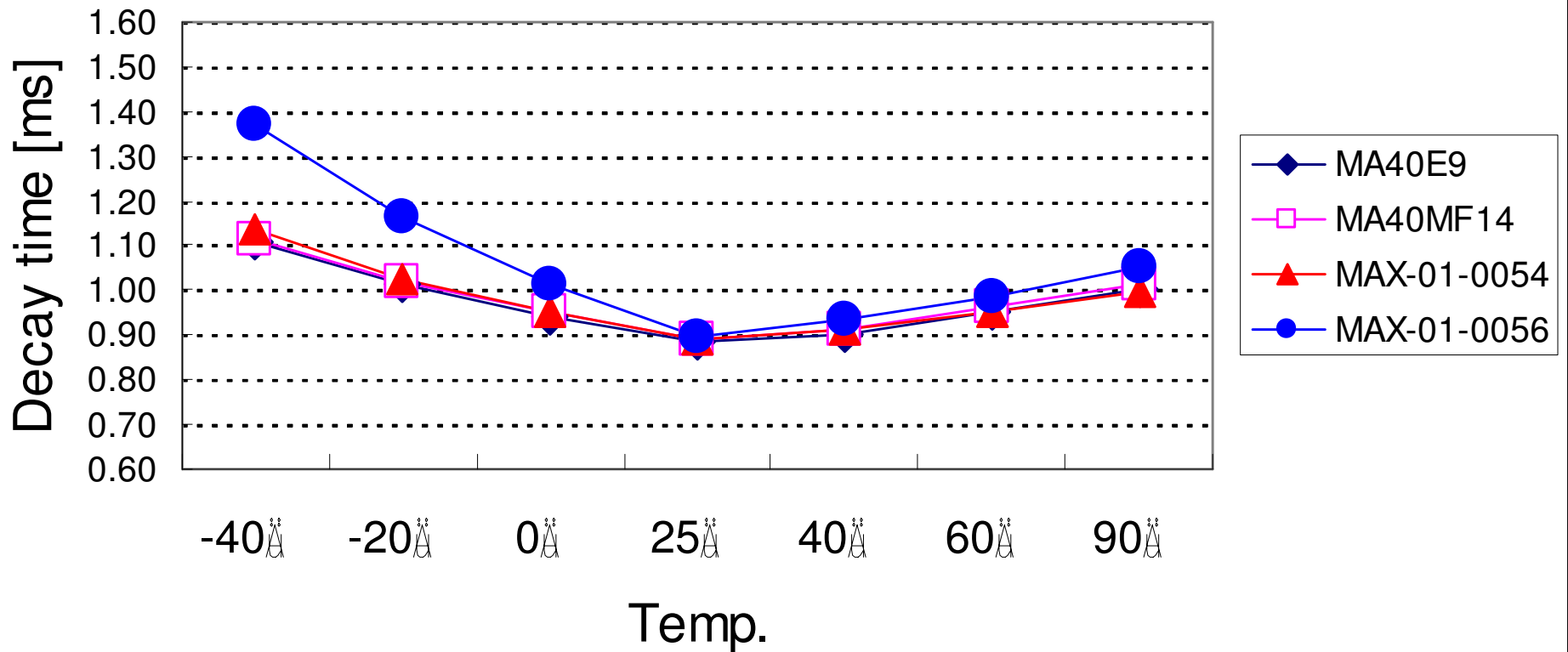
Directivity - New model vs. Current model -
iSensor Onlyj



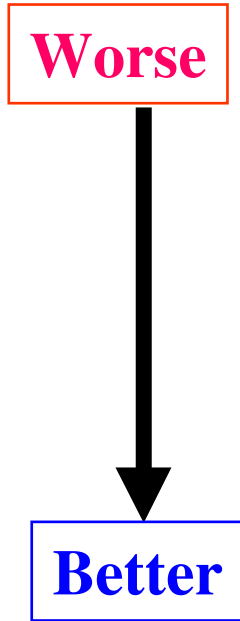
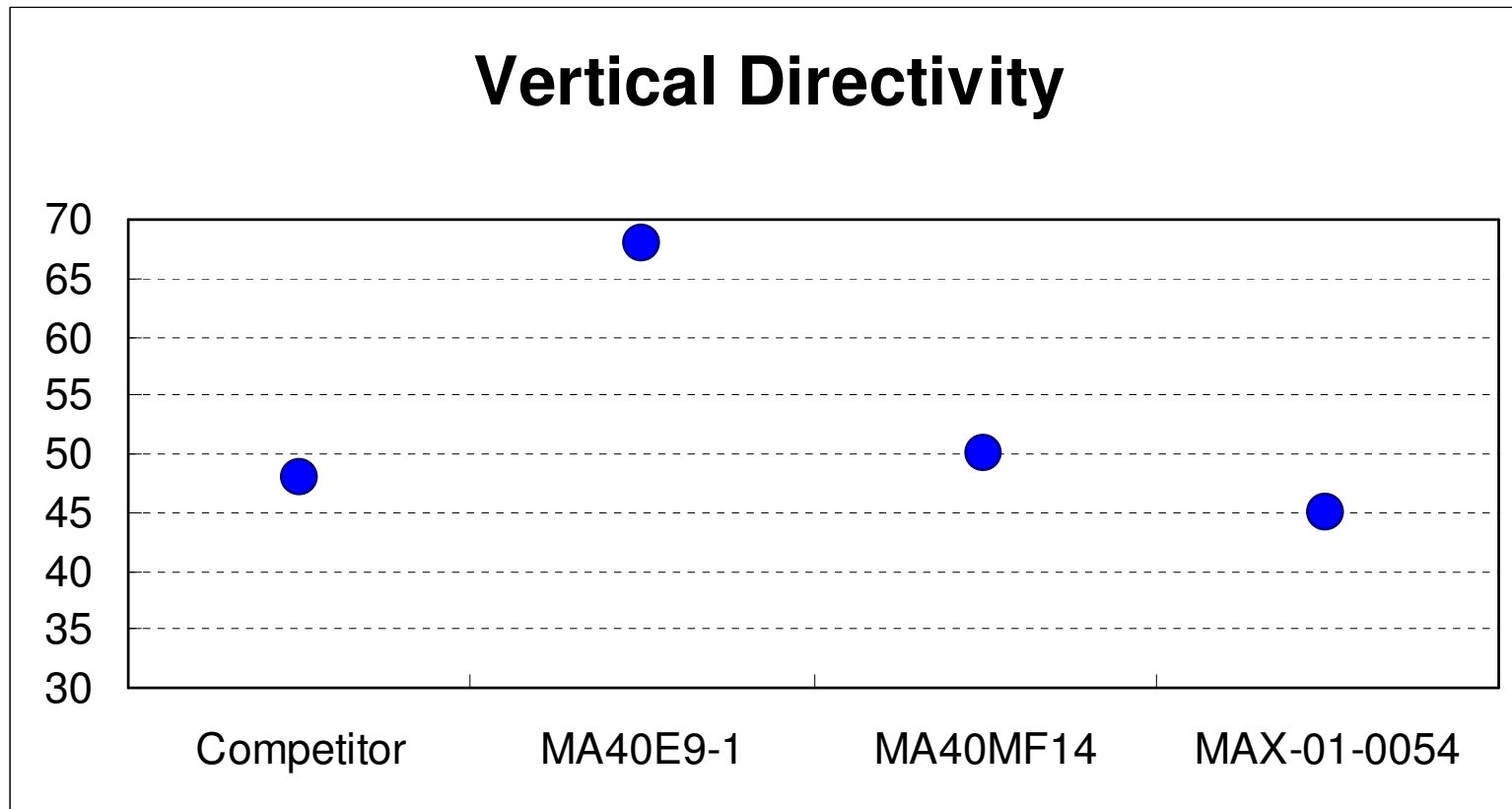
The feature of new sensor - How much Decay time is improved? -



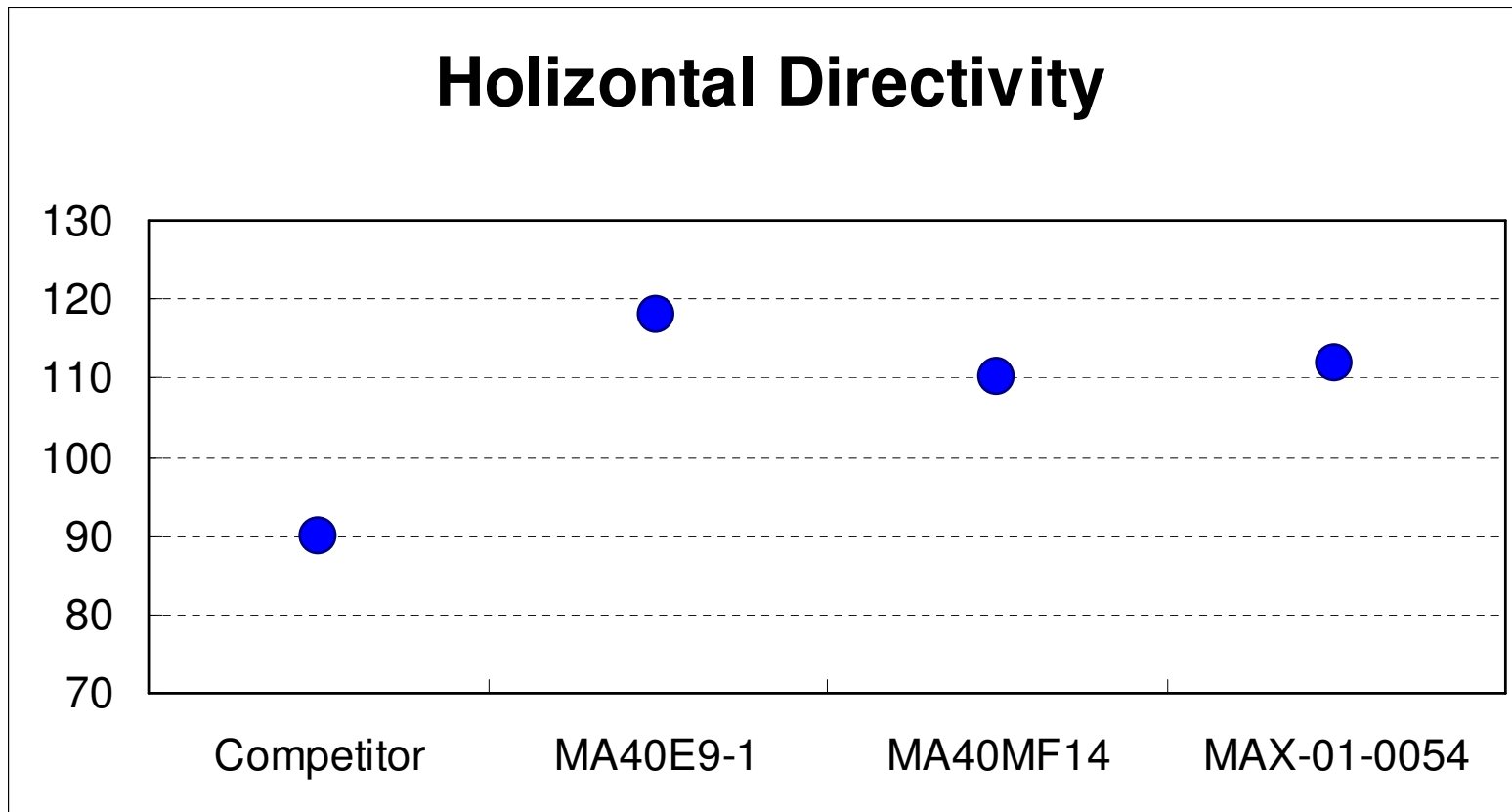
Decay time temp. drift



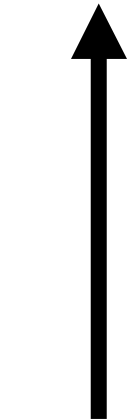
Directivity 1 - Murata vs. competitor



Directivity 2 - Murata vs. competitor

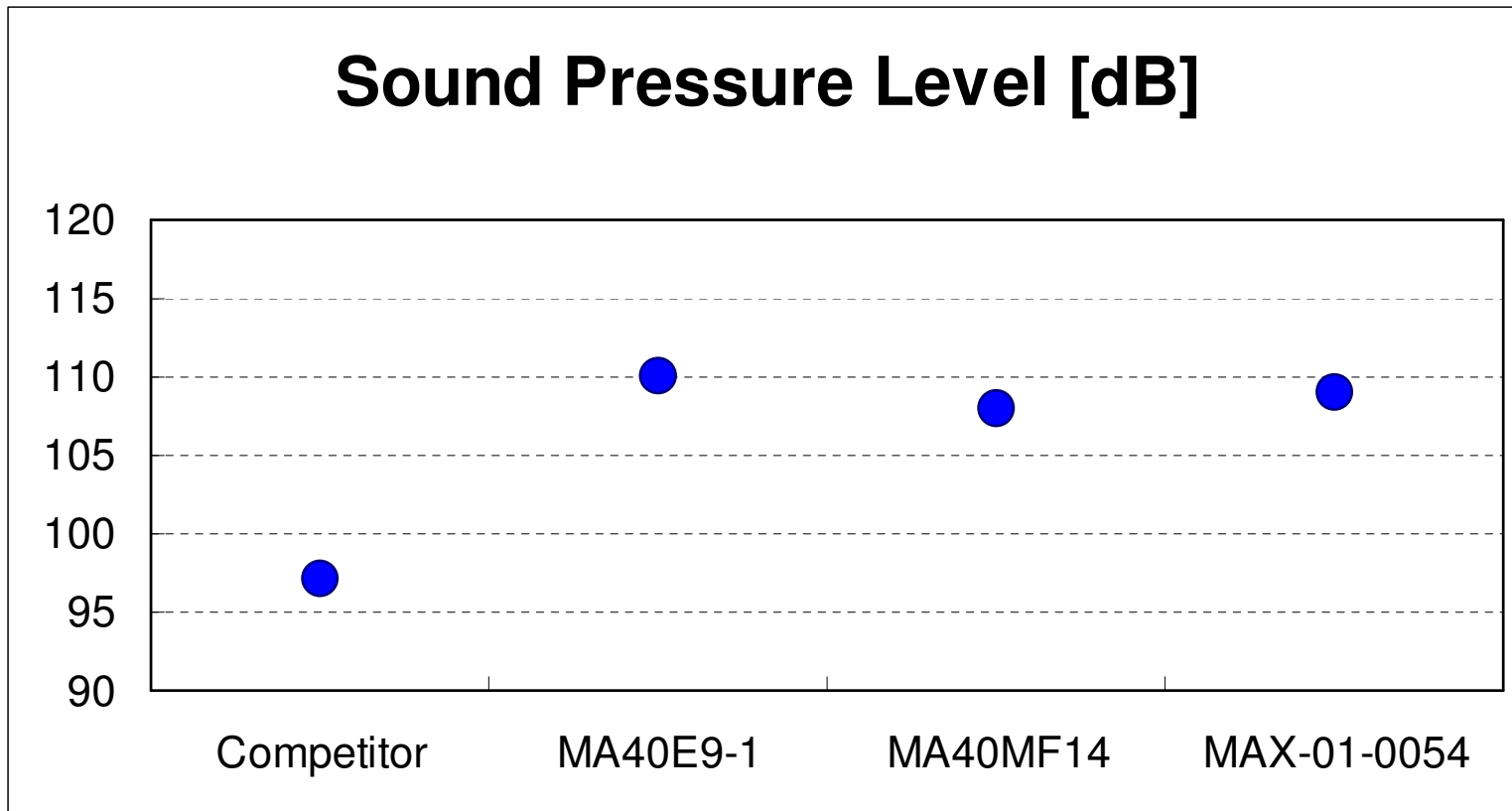


Better



Worse

S.P.L. - Murata vs. competitor



Better



Worse

Sensitivity - Murata vs. competitor

