Product Bulletin

Title:	**LK PB-2201 – ALTERA SPECIFICATION IMPROVEMENTS 2022**		
Product Line:	ALTERA	**Variants:**	C /S /M /SL
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Issue:	1.0	**Date:**	Revised 10th Feb 2022
Distribution:	LK ✓	Resellers ✓	

Summary

LK Metrology introduces improved accuracy and part weight specifications for the ALTERA range for 2022, further increasing the competitiveness of the ALTERA C, S, M and SL while harmonising product lines.

Accuracy specifications improvements for ALTERA include - length measurement accuracy for standard and extended temperature ranges, repeatability and probing accuracy – involving all probes types.

The part weight specification for ALTERA, previously known as table loading, has been re-classified. The standard part weight is now referred to as the metrological part weight. The maximum part weight specification has been increased to improve competitiveness.

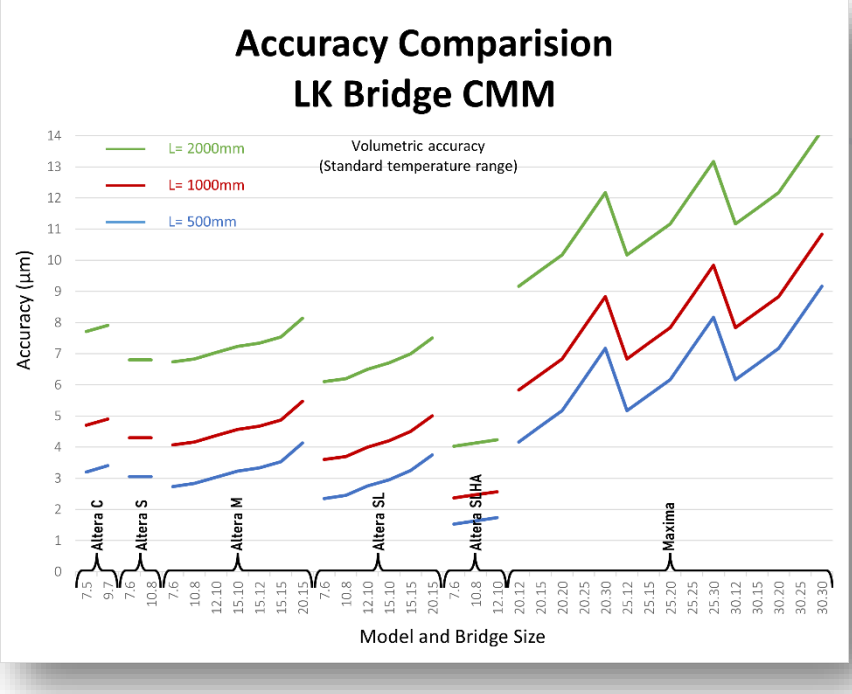
Overview

The table below provides an overview of the ALTERA accuracy improvements.

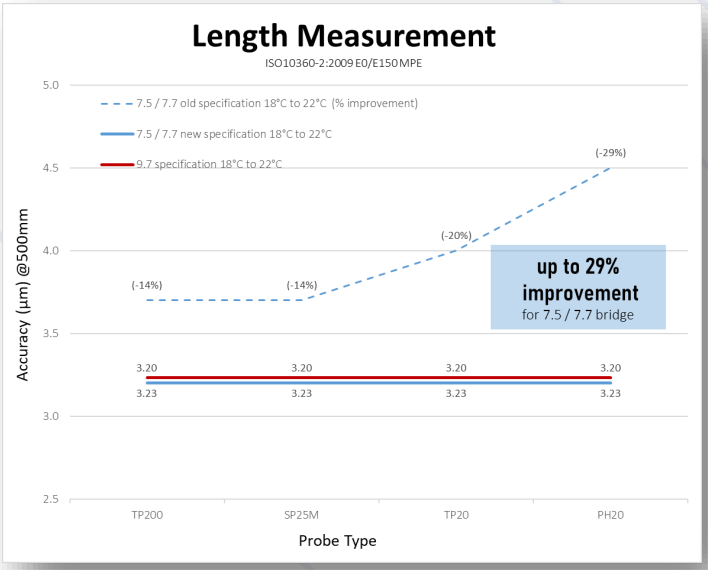
Product Line	Length Measurement 18°C to 22°C	Length Measurement 16°C to 26°C	Repeatability	Probing Accuracy
Altera C	29%		15%	23%
Altera S		46%		19%
Altera M	5%	47%	11%	16%
Altera SL	11%	44%	23%	25%

Best-case improvement quoted per product line.

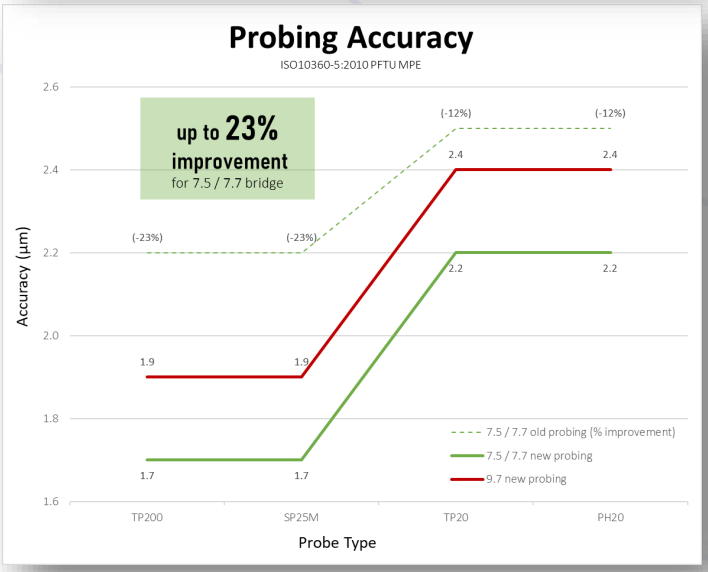
The graph below shows the harmonised length measurement specification for the LK bridge CMM products.



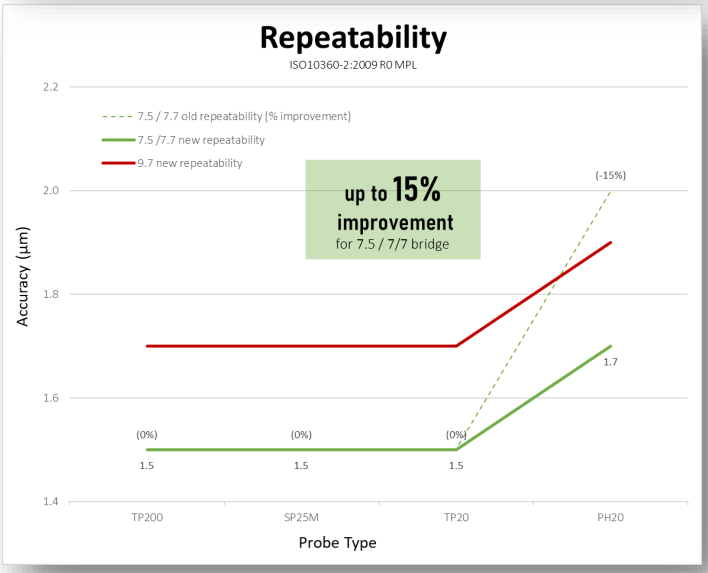
ALTERA C



Bridge	TP200 accuracy 18°C to 22°C	
Size	old	new
7.5 / 7.7	2.2+L/333	1.7+L/333
9.7		1.9+L/375
Bridge	SP25M accuracy 18°C to 22°C	
Size	old	new
7.5 / 7.7	2.2+L/333	1.7+L/333
9.7		1.9+L/375
Bridge	TP20 accuracy 18°C to 22°C	
Size	old	new
7.5 / 7.7	2.5+L/333	1.7+L/333
9.7		1.9+L/375
Bridge	PH20 accuracy 18°C to 22°C	
Size	old	new
7.5 / 7.7	3+L/333	1.7+L/333
9.7		1.9+L/375

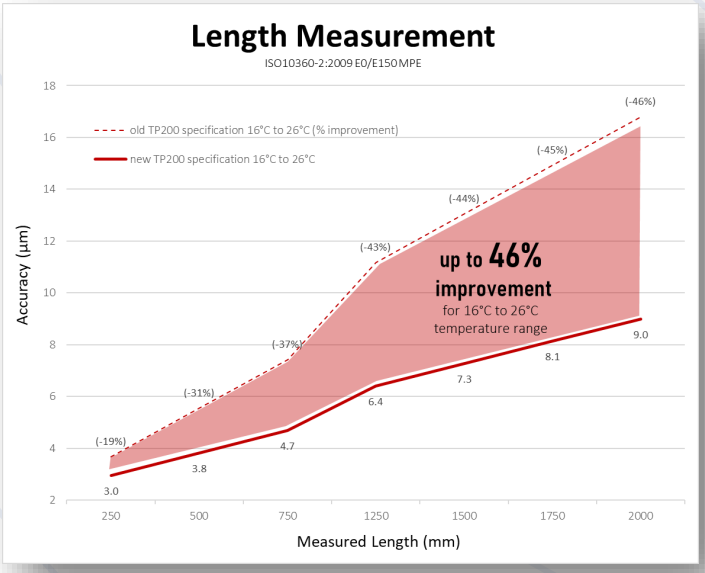


Bridge	TP200 probing	
Size	old	new
7.5 / 7.7	2.2	1.7
9.7		1.9
Bridge	SP25M probing	
Size	old	new
7.5 / 7.7	2.2	1.7
9.7		1.9
Bridge	TP20 probing	
Size	old	new
7.5 / 7.7	2.5	2.2
9.7		2.4
Bridge	PH20 probing	
Size	old	new
7.5 / 7.7	2.5	2.2
9.7		2.4

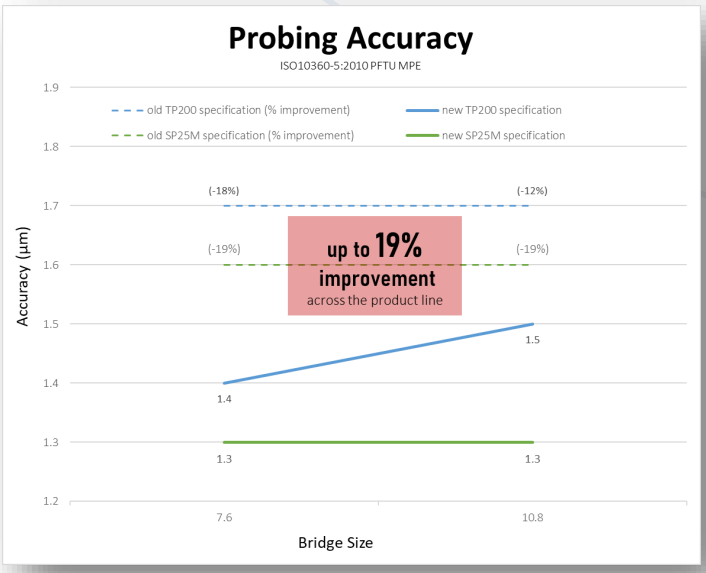


Bridge	TP200 repeatability	
Size	old	new
7.5 / 7.7	1.5	1.5
9.7		1.7
Bridge	SP25M repeatability	
Size	old	new
7.5 / 7.7	1.5	1.5
9.7		1.7
Bridge	TP20 repeatability	
Size	old	new
7.5 / 7.7	1.5	1.5
9.7		1.7
Bridge	PH20 repeatability	
Size	old	new
7.5 / 7.7	2.0	1.7
9.7		1.9

ALTERA S

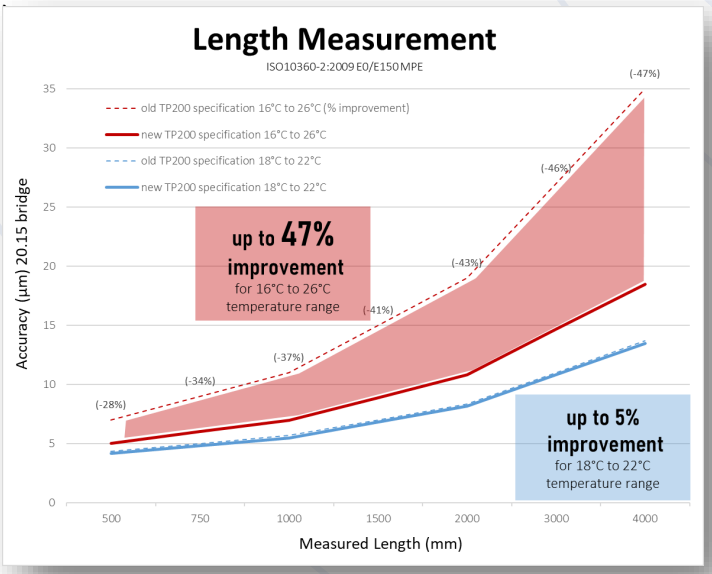


Bridge	TP200 accuracy 16°C to 26°C	
Size	old	new
7.6	1.8+3L/400	2.1+L/290
10.8	1.8+3L/400	2.1+L/290
Bridge	SP25M accuracy 16°C to 26°C	
Size	old	new
7.6	1.8+3L/400	2.1+L/290
10.8	1.8+3L/400	2.1+L/290
Bridge	TP20 accuracy 16°C to 26°C	
Size	old	new
7.6	2.0+3L/400	2.3+L/290
10.8	2.0+3L/400	2.3+L/290
Bridge	PH20 accuracy 16°C to 26°C	
Size	old	new
7.6	2.0+3L/400	2.3+L/290
10.8	2.0+3L/400	2.3+L/290

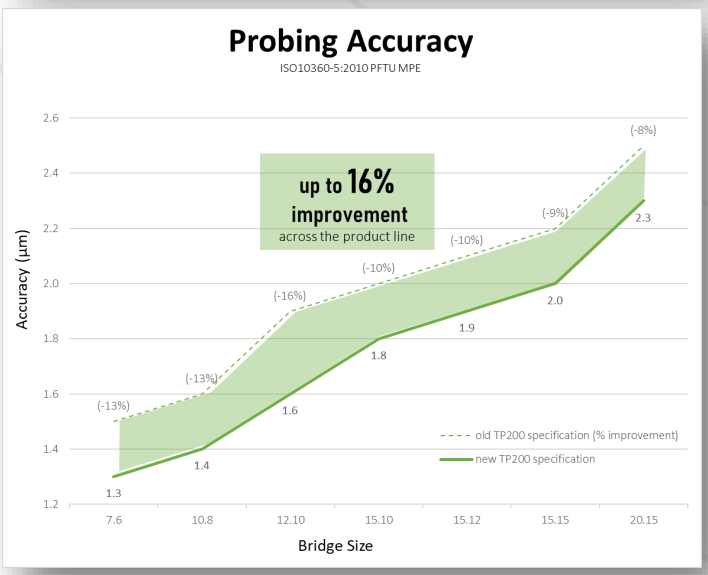


Bridge	TP200 probing	
Size	old	new
7.6	1.7	1.4
10.8	1.7	1.5
Bridge	SP25M probing	
Size	old	new
7.6	1.6	1.3
10.8	1.6	1.3

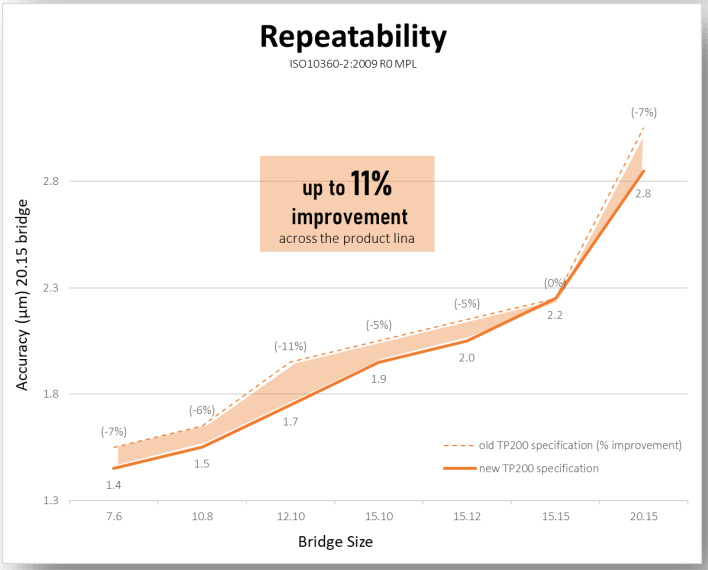
ALTERA M



Bridge	TP200 specification 18°C to 22°C	
Size	old	new
7.6	1.5+L/375	1.4+L/375
10.8	1.6+L/375	1.5+L/375
12.10	1.9+L/375	1.7+L/375
15.10	2+L/375	1.9+L/375
15.12	2.1+L/375	2+L/375
15.15	2.2+L/375	2.2+L/375
20.15	3+L/375	2.8+L/375
Bridge	TP200 specification 16°C to 26°C	
Size	old	new
7.6	1.5+3L/375	1.7+L/260
10.8	1.6+3L/375	1.8+L/260
12.10	1.9+3L/375	2+L/260
15.10	2+3L/375	2.2+L/260
15.12	2.1+3L/375	2.3+L/260
15.15	2.2+3L/375	2.5+L/260
20.15	3+3L/375	3.1+L/260

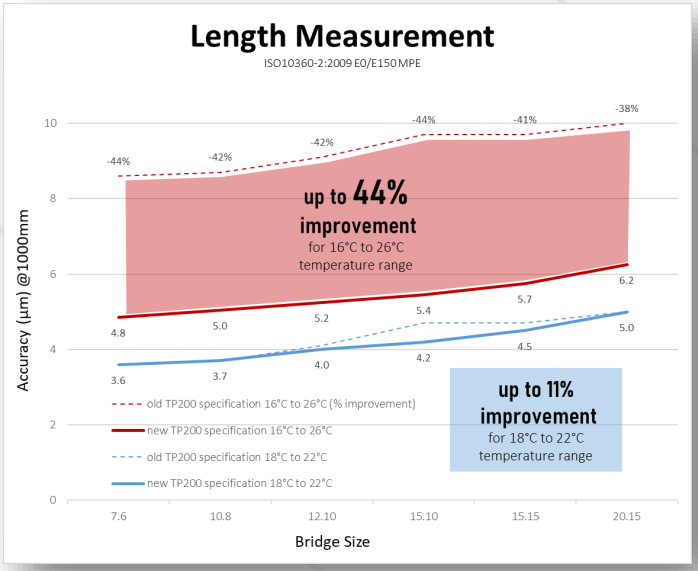


Bridge	TP200 probing	
Size	old	new
7.6	1.5	1.3
10.8	1.6	1.4
12.10	1.9	1.6
15.10	2.0	1.8
15.12	2.1	1.9
15.15	2.2	2.0
20.15	2.5	2.3

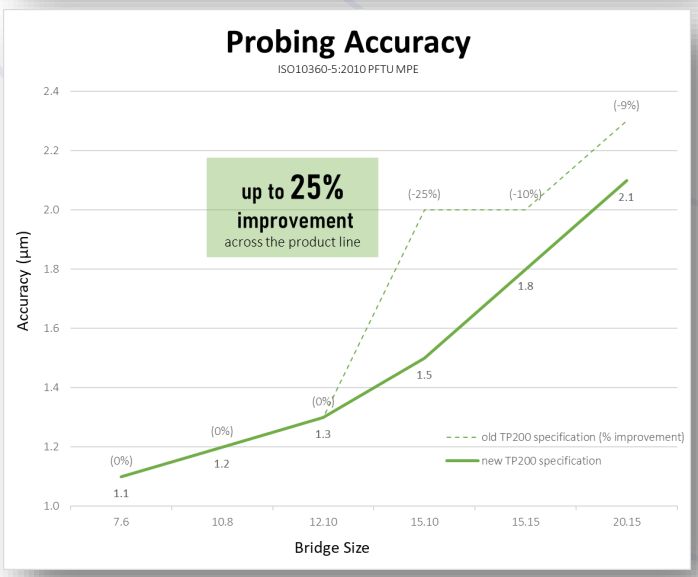


Bridge	TP200 repeatability	
Size	old	new
Size	1.5	1.4
7.6	1.6	1.5
10.8	1.9	1.7
12.10	2.0	1.9
15.10	2.1	2.0
15.12	2.2	2.2
15.15	3.0	2.8

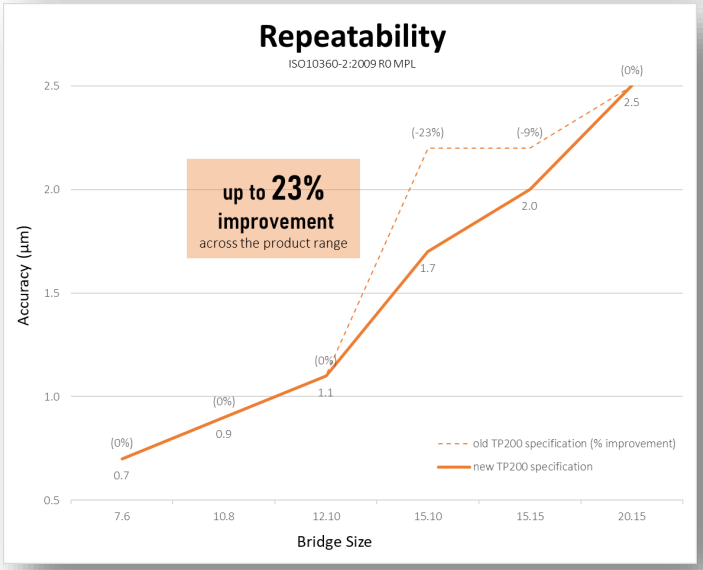
ALTERA SL



Bridge	TP200 accuracy 18°C to 22°C	
Size	old	new
7.6	1.1+L/400	1.1+L/400
10.8	1.2+L/400	1.2+L/400
12.10	1.6+L/400	1.5+L/400
15.10	2.2+L/400	1.7+L/400
15.15	2.2+L/400	2+L/400
20.15	2.5+L/400	2.5+L/400
Bridge	TP200 accuracy 16°C to 26°C	
Size	old	new
7.6	1.1+3L/400	1.4+L/290
10.8	1.2+3L/400	1.6+L/290
12.10	1.6+3L/400	1.8+L/290
15.10	2.2+3L/400	2+L/290
15.15	2.2+3L/400	2.3+L/290
20.15	2.5+3L/400	2.8+L/290



Bridge	T200 Probing	
Size	old	new
7.6	1.1	1.1
10.8	1.2	1.2
12.10	1.3	1.3
15.10	2.0	1.5
15.15	2.0	1.8
20.15	2.3	2.1



Bridge	TP200 Repeatability	
Size	old	new
7.6	0.7	0.7
10.8	0.9	0.9
12.10	1.1	1.1
15.10	2.2	1.7
15.15	2.2	2.0
20.15	2.5	2.5

Part Weight

The part weight specification for ALTERA, previously known as table loading, has been re-classified. The standard part weight is now referred to as the metrological part weight, this weight relates to the datasheet accuracy specification. The maximum part weight specification has been increased to improve competitiveness, this weight relates to safe operation of the CMM. Both weight specifications apply when the part is positioned within the CMM measurement volume.

This datasheet extract shows an example metrological part weight and maximum part weight specification.

	Travels[1]			Overall			Granite Table					Floor[2]	Clearance	Access	Part Weight		CMM
	X	Y	Z	L	W	H	TX	TT	TH	HX	HY	F	CH	AH‡	Std.[3]	Max.[4]	Weight
7.7.5	700	650	500	1360	1180	2533	1330	170	840	270	120	50	688	1335	650	1459	1018
	(28)	(26)	(20)	(53.5)	(46.5)	(99.7)	(52.4)	(6.7)	(33.1)	(10.6)	(4.7)	(2.0)	(27.1)	(52.6)	[1433]	[3217]	[2244]

[1]Maximum travel of probe head reference point.
[2]Minimum thickness of homogeneous concrete floor with minimum shear strength of 0.4 N/mm2 (58 psi).
[3]Recommended metrological part weight, positioned within the measurement volume.
[4]Recommended maximum part weight, positioned within the measurement volume.
‡Height of bridge assembly for installation access excluding lifting equipment and clearances.

Availability

The improved accuracy and part weight specifications are effective immediately and apply to new orders received by LK for ALTERA C, S, M and SL.

Related Documents

For more product information visit the ALTERA C, ALTERA S, ALTERA M and ALTERA SL product pages, where the following updated documents are available.

Product Bulletin — LK PB-2201 Altera specification improvements 2022 (this document)

Datasheets

- ALTERA C x.7.5
- ALTERA C x.7.7
- ALTERA C x.9.7

- ALTERA S 10.7.6
- ALTERA S 15.7.6
- ALTERA S x.10.8

ALTERA M x.7.6	ALTERA M x.7.6 SCANtek5
ALTERA M x.10.8	ALTERA M x.10.8 SCANtek5
ALTERA M x.12.10	ALTERA M x.12.10 SCANtek5
ALTERA M x.15.10	ALTERA M x.15.10 SCANtek5
ALTERA M x.15.12	ALTERA M x.15.12 SCANtek5
ALTERA M x.15.15	ALTERA M x.15.15 SCANtek5
ALTERA M x.20.15	ALTERA M x.20.15 SCANtek5

ALTERA SL x.7.6	ALTERA SL x.7.6 SCANtek5
ALTERA SL x.10.8	ALTERA SL x.10.8 SCANtek5
ALTERA SL x.12.10	ALTERA SL x.12.10 SCANtek5
ALTERA SL x.15.10	ALTERA SL x.15.10 SCANtek5
ALTERA SL x.15.15	ALTERA SL x.15.15 SCANtek5
ALTERA SL x.20.15	ALTERA SL x.20.15 SCANtek5