

## RTS/OTS650 series Total Station



- Power long reflectorless measuring distance 300m(R300)/500m(R500)
- Bluetooth<sup>®</sup> cable-free connection(Factory optional)
- 128M internal memory, 120000 points and 40 Jobs can be saved
- Can be operated with a data collector, FOIF FieldGenius, or other third party software is available
- IP66 environmental protection
- Alphanumeric keyboard



TS650 can connect to data collector through Bluetooth or RS-232C



# RTS/OTS650 Basic Total Station

## ■ Technical data

	OTS650	RTS650		OTS650	RTS650
<b>Telescope</b>			<b>Compensator</b> Electronic single axis		
Length	156mm		Range	±3'	
Image	Erect		Setting accuracy	1"	
Objective aperture	φ45mm		<b>Level vial sensitivity</b>		
Magnification	30×		Plate level vial	30" /2mm	
Field of view	1° 30'		Circular level vial	8' /2mm	
Shortest focus distance	1.0m		<b>Laser plummet(Standard)*4</b>		
<b>Angle measurement</b>			Accuracy	±1mm/1.5m	
Reading system	Absolute encoder		Laser class	Class 2/IEC60825-1	
Angle unit	360° /400gon/6400mil, selectable		Brightness	Adjustable	
Display resolution	1" /5" /10" (or 0.2mgon/1mgon/2mgon)		Laser wave length	635nm	
Accuracy*1	2" / 5"		<b>Optical plummet(Factory optional)</b>		
<b>Distance measurement</b>			Accuracy	±0.8mm/1.5m	
Laser class(IEC60825-1)	/		Image	Erect	
Reflectorless	Class 3R	/	Magnification/Field of view	3x/4°	
Reflective sheet/RP60	Class 3R	/	Focus range	0.5m to ∞	
Prism	Class 1	/	<b>Power</b>		
Measurement range (Good condition)*2	/		Battery	3400mAh Li-ion Rechargeable	
Reflectorless*3	/		Output voltage	7.4V DC	
R300	1 to 300m	/	Continuous operation time	Approx. 26 hours(At +20°C) (single distance measurement every 30 seconds)	
R500	1 to 500m	/	Charger	FDJ6-Li (110V /240V )	
Reflective sheet/RP60	1 to 800m	/	Charging time(at +20°C)	Approx. 4 hours	
Single prism	1 to 3000m	1 to 3000m	<b>Application programs</b>		
Accuracy	/		Data collection/Stake out/Resection/REM/MLM	/	
Prism	2mm+2ppm	2mm+2ppm	AREA/Point to line/Z coordinate/OFFset	/	
Reflective sheet/RP60	3mm+2ppm	/	<b>Others</b>		
Reflectorless	/		Display	LCD, 4lines X16characters(64 X128 dots)	
R300	1-150m:3mm+2ppm	/	CPU	32Bit	
	≥150:5mm+3ppm	/	Memory	128M, 120000 points, support SD card(Optional)	
R500	1-200m:3mm+2ppm	/	Keyboard	Alphanumerical key board, both sides	
	≥200:5mm+3ppm	/	Weight(including batteries)	5.1kg	
Measuring time	Initial:2.5s	Initial:2.5s	Dimensions(WxDxH)	175x178x340mm	
Prism	typ.1.0-1.5s	1.0-1.5s	Operating temperature	-20°C to+50°C	
Reflective sheet/RP60	typ.1.5s	/	Storage temperature	-40°C to +70°C	
Reflectorless	typ.1.5-5s, max. 20s	/	Interface	USB/RS-232C/Bluetooth(Factory Optional)	
Display resolution(m/inch selectable)	0.2mm/1mm		Water and dust protection	IP66(IEC60529)	
Temperature input range	-40°C to+60°C(1°C steps)		Data transfer&processing software	FOIF Geomatics Office	
Pressure input range	500hPa to 1500hPa( 1hPa steps)		Data collector	PS236, fully rugged PDA(Optional)	
Prism constant correction	-99.9mm to +99.9mm				

\*1 Standard deviation based on ISO17123-3

\*2 Good conditions: no haze, visibility about 40km, no heat shimmer, breeze

\*3 Reflector: White side of Kodak Gray Card with 90% reflective

\*4 Laser plummet mounted on the bottom of the vertical axis

Illustrations, descriptions and technical specifications are not binding and may change

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