

## RTS/OTS680 series Total Station



- Long reflectorless measuring distance 500m(R500)/1000m(R1000)
- High precision measurement, prism: 2mm+2ppm(R500)/1mm+1.5ppm(R1000)
- Record or transfer data to external SD card directly
- Bluetooth<sup>®</sup> cable-free connection(Factory optional)
- Can be operated with a data collector, FOIF FieldGenius, or other third party software is available
- License protection for security
- Built-in temperature and pressure sensors



TS680 can connect to data collector through Bluetooth or RS-232C



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## Technical data

	OTS680	RTS680		OTS680	RTS680
<b>Telescope</b>			<b>Level vial sensitivity</b>		
Length/Image	156mm/Erect		Plate level vial	30" /2mm	
Objective aperture	φ45mm		Circular level vial	8' /2mm	
Magnification/Field of view	30x/1° 30'		<b>Compensator</b>		
Shortest focus distance	1.0m		System	Electronic 2 axis compensator	
<b>Angle measurement</b>			Working range	±3'	
Reading system	Absolute encoder		Setting accuracy	1"	
Angle unit	360° /400gon/6400mil, selectable		<b>Laser plummet(Standard)*4</b>		
Display resolution	0.5" /1" /5" (or 0.1/0.2/1mgon)		Accuracy	±1mm/1.5m	
Accuracy*1	2" / 5"		Laser class	Class 2/IEC60825-1	
<b>Distance measurement(R500)</b>			Laser brightness	Adjustable	
Display resolution(m/inch selectable)	0.1mm/1mm		Laser wave length	635nm	
Laser class Prism	Class 1		<b>Optical plummet(Factory optional)</b>		
Reflectorless/Reflective sheet	Class 3R	/	Accuracy	±0.8mm/1.5m	
Measurement range (Good condition)*2			Image	Erect	
Reflectorless*3	1 to 500m		Magnification	3×	
Reflective sheet/RP60	1 to 800m		Field of view	4°	
Single prism	1 to 3000m		Focus range	0.5m to ∞	
Accuracy			<b>Display</b>	Large LCD (240×128dots)	
Prism	2mm+2ppm/1mm+1.5ppm(Optional)		<b>Power</b>		
Reflective sheet/RP60	3mm+2ppm		Battery	3400mAh Li-ion Rechargeable	
Reflectorless 1-200m:3mm+2ppm/≥200:5mm+3ppm	/		Output voltage	7.4V DC	
Measuring time	Initial:2.5s		Continuous operation time	Approx.19 hours (single distance measurement every 30 seconds)	
Prism	typ.1.0-1.5s		Charger	FDJ6-Li(110V /240V )	
Reflective sheet/RP60	typ.1.5s		Charging time(at +20℃)	Approx. 4 hours	
Reflectorless	typ.1.5-5s, max. 20s		<b>Application programs</b>		
<b>Distance measurement(R1000, only OTS series)</b>			Data collection/Stake out/Resection/REM/MLM		
Laser class			AREA/Point to line/Z coordinate/OFFset/3D Road		
Prism standard mode/Prism long mode	Class1/Class 2		<b>Others</b>		
Reflective sheet	Class 2		CPU	32Bit	
Reflectorless standard mode	Class 2		Memory	128M internal memory, SD card	
Reflectorless long mode	Class 3R		Sensors	Built-in temperature and pressure sensors	
Measurement range (Good condition)*2			Keyboard	Alphanumerical key board, both sides	
Standard mode/Prism	1 to 3500m		Weight(including batteries)	5.5kg	
Long mode /Prism	1 to 6000m		Dimensions(WxDxH)	185x220x360mm	
Reflective sheet/RP60	1 to 1200m		Operating temperature	-20℃ to+50℃	
Reflectorless*3	1 to 1000m		Storage temperature	-40℃ to +70℃	
Accuracy/typital measuring time(max.20s)			Interface	USB/RS-232C/Bluetooth(Optional)	
Prism standard mode	1mm+1.5ppm/1.0s~5.0s		Water and dust protection	IP55(IEC60529)	
Prism long mode	2mm+2.5ppm/0.7s~6s		Data transfer&processing software	FOIF Geomatics Office	
Reflective sheet/RP60	2mm+2ppm/1s~5s		Data collector	PS236, fully rugged PDA(Optional)	
Reflectorless	1-500m: 2mm+2ppm/0.7s~6s >500m: 4mm+2ppm/3s~12s		Guide Light System	Factory optional	

\*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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