

## **New Reflectorless distance** measurement technology "Multi Pulse"

Topcon's unique optical technology "Multi Pulse" enhanced the productivity

#### Reflectorless distance measurement up to 350M



GPT-3100N achieved Reflectorless distance measurement up to 350M, 140% improvement against previous model (250M)

# Significant saving of power consumption



Multi Pulse optical system contributed to power consumption cut down from 4.7W to 3.6W (±20% down), but extended operating time to 5 hours (+120%)



### It's time.

#### TOPCON CORPORATION

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#### **Specifications**

TELESCOPE	GPT-3102N	GPT-3103N	GPT-3105N	GPT-3107N			
Length		160	mm				
Objective Lens Dia.	150mm						
Magnification	45mm (EDM 50mm) 30×						
Image	Erect Erect						
Field of View	1°30′						
Resolving Power	2.8"						
Min. Focus Distance	1.3m (4.9 ft.)						
DISTANCE MEASUREMENT		1.3111	(4.9 IL)				
Prism Mode							
Measuring Range							
Mini prism	1,000m*						
I prism	3.000m*/4.000m**						
3 prisms	4,000m*/5,300m**						
9 prisms	5,000m*/6,500m**						
* Condition 1: Slight haze with visibility about 20k	m (13.5 miles) moderate						
** Condition 2: No haze with visibility about 40km(			estimates.				
Measurement Accuracy*1			Coarse: +/7mm+2n	nm~D\m s e			
Measuring Time	Fine: ±(2mm+2ppm×D)m.s.e. Coarse: ±(7mm+2ppm×D)m.s.e. Fine mode 1mm: Approx.1.1 sec. (Initial 2.5 sec.)						
mecoaming filling	0.2mm: Approx. 1.5 sec. (Initial 3 sec.)						
	Coarse mode 1mm/10mm: Approx. 0.8 sec. (Initial 2 sec.)						
Non-Prism Mode (Diffusing Surface)	Codise	noue miny willing	wprox. 0.0 sec. (IIII	uui 2 3CG/			
Measuring Range	1.5m to 350m						
Measuring Accuracy	±(3mm+2ppm×D)m.s.e.						
Measuring Accuracy	Coarse: ±(10mm)m.s.e.						
Measuring Time	Fine mode 1mm: Approx. 1.7 sec. (Initial 3 sec.)						
wiedsuring rittle	0.2mm: Approx. 2.6 sec. (Initial 3.5 sec.)						
	Coarse mode 1mm/10mm: Approx. 1.0 sec. (Initial 2.0 sec.)						
ANGLE MEASUREMENT	Codise III	oue mility formin. A	pprox. 1.0 sec. (IIIIu	di 2.0 Sec.)			
Method		Absolute	Reading				
Detecting System	H: 2 sides V: 2 sides		s V: 1 side	H: 1 side V:1 sid			
Minimum Reading	TL Z SIUCS V. Z SIUCS	1"/5" (0.2/1mgon)	S Y, 1 Sluc	5"/10"(1/2mgon			
Accuracy*2	2"(0.6mgon)	3"(Imgon)	5"(1.5mgon)	7"(2mgon)			
Diameter of Circle	2 (0.6Higoli)		nm	/ (Ziligoli)			
DISPLAY		, , ,					
Display Unit	-	raphics LCD 160 v	E4 Date with backling	dst			
Display Offic	Graphics LCD 160 × 64 Dots with backlight 2 sides T side			T side			
Keyboard	2 31		meric key	1 2106			
TILT CORRECTION (AUTOMATIC INDEX		Alpha-Ni	illienc key				
Tilt Sensor							
Method	Dual axis Single axis Liquid type						
Compensating Range	±3'						
Compensating kange Correction Unit			mgon)				
OTHERS		1 (0.	iligoti)				
		Approx 34	AAA nointe	Approx. 24,000 points 176mm (6.93 in.)			
The Number of Measuring Points							
The Number of Measuring Points Instrument Height	Class 1 /fee	176mm	(6.93 in.)	Dointor on			
The Number of Measuring Points Instrument Height Laser Class	Class 1 (for		(6.93 in.)	r Pointer on)			
The Number of Measuring Points Instrument Height Laser Class LEVEL SENSITIVITY	Class 1 (for	176mm distance measurem	(6.93 in.) ent) Class 2 (Lase	r Pointer on)			
The Number of Measuring Points Instrument Height Laser Class LEVEL SENSITIVITY Circular Level	Class 1 (for	176mm distance measurem 10'/.	(6.93 in.)				
The Number of Measuring Points Instrument Height Laser Class LEYEL SENSITIVITY Circular Level Plate Level		176mm distance measurem 10'/. 30"/2mm	(6.93 in.) ent) Class 2 (Laser 2mm	40"/2mm			
The Number of Measuring Points Instrument Height Laser Class  LEVEL SENSITIVITY  Circular Level  Plate Level  DIMENSION		176mm distance measurem 10'/.	(6.93 in.) ent) Class 2 (Laser 2mm	40"/2mm			
The Number of Measuring Points Instrument Height Laser Class  LEVEL SENSITIVITY  Circular Level Plate Level  DIMENSION  WEIGHT		176mm distance measurem 10'/. 30"/2mm ×184(W)×172(L)mm	(6.93 in.) ent) Class 2 (Lase) 2mm n/13.2(H)×7.2(W)×0	40"/2mm			
The Number of Measuring Points Instrument Height Laser Class  LEYEL SENSITIVITY  Circular Level  Plate Level  DIMENSION  WEIGHT  Instrument (with battery)	336(H)	176mm distance measurem 10'/. 30"/2mm ×184(W)×172(L)mr 5.3kg(1	(6.93 in.) ent) Class 2 (Laser 2mm n/13.2(H)×7.2(W)×1 11.6 lbs.)	40"/2mm 5.8(L)in.			
The Number of Measuring Points Instrument Height Laser Class  LEVEL SENSITIVITY  Circular Level  Plate Level  DIMENSION  WEIGHT  Instrument (with battery)  Plastic Carrying Case	336(H)	176mm distance measurem 10'/. 30"/2mm ×184(W)×172(L)mm	(6.93 in.) ent) Class 2 (Laser 2mm n/13.2(H)×7.2(W)×1 11.6 lbs.)	40"/2mm 5.8(L)in.			
The Number of Measuring Points Instrument Height Laser Class  LEVEL SENSITIVITY  Circular Level Plate Level  DIMENSION  WEIGHT Instrument (with battery)  Plastic Carrying Case  DURABILITY  DURABILITY	336(H) 3.4kg (7.3 lbs.) (h	176mm distance measurem 10'/ 30"/2mm ×184(W)×172(L)mi 5.3kg(') teight of the carrying case	(6.93 in.) ent) Class 2 (Laser  2mm  n/13.2(H)×7.2(W)×1  T.6 lbs.) may be slightly different	40"/2mm 5.8(L)in. due to specific market			
The Number of Measuring Points Instrument Height Laser Class  LEYEL SENSITIVITY  Circular Level  Plate Level  DIMENSION  WEIGHT Instrument (with battery) Plastic Carrying Case  DURABILITY  Protection against water and dust	336(H) 3.4kg (7.3 lbs.) (h	176mm distance measurem 10// 30"/2mm x184(W)×172(L)mr 5.3kg( leight of the carrying case ith BT-52QA) (Baser	(6.93 in.) ent) Class 2 (Lase) 2mm n/13.2(H)×7.2(W)×1 T.1.6 lbs.) may be slightly different d on the standard IE	40"/2mm 5.8(L)in. due to specific market			
The Number of Measuring Points Instrument Height Laser Class  LEVEL SENSITIVITY Circular Level Plate Level DIMENSION WEIGHT Instrument (with battery) Plastic Carrying Case DURABILITY Protection against water and dust Ambient Temperature Range	336(H) 3.4kg (7.3 lbs.) (h	176mm distance measurem 10// 30"/2mm x184(W)×172(L)mr 5.3kg( leight of the carrying case ith BT-52QA) (Baser	(6.93 in.) ent) Class 2 (Laser  2mm  n/13.2(H)×7.2(W)×1  T.6 lbs.) may be slightly different	40"/2mm 5.8(L)in. due to specific market			
The Number of Measuring Points Instrument Height Laser Class  LEVEL SENSITIVITY  Circular Level Plate Level  DIMENSION  WEIGHT Instrument (with battery) Plastic Carrying Case  DURABILITY  Protection against water and dust  Ambient Temperature Range  BATTERY BT-52QA	336(H) 3.4kg (7.3 lbs.) (h IP66 (w	176mm distance measurem 10'/ 30"/2mm ×184(W)×172(L)mi 5.3kg(' eight of the carrying case ith BT-52QA) (Baser –20°C to +50°C	(6.93 in.) ent) Class 2 (Lase) 2mm n/13.2(H)×7.2(W)×1 T.1.6 lbs.) may be slightly different d on the standard IE	40"/2mm 5.8(L)in. due to specific market			
The Number of Measuring Points Instrument Height Laser Class  LEVEL SENSITIVITY Circular Level Plate Level DIMENSION WEIGHT Instrument (with battery) Plastic Carrying Case DURABILITY Protection against water and dust Ambient Temperature Range	336(H)  3.4kg (7.3 lbs.) (h  IP66 (w  ged) at +20°C (+68°	distance measurem  10// 30°/2nmm >×184(W)×172(L)mm 5.5kg(' eight of the carrying case -20°C to +50°C	(6.93 in.) ent) Class 2 (Lase) 2mm n/13.2(H)×7.2(W)×1 T.1.6 lbs.) may be slightly different d on the standard IE	40"/2mm 5.8(L)in. due to specific market			

<sup>\*1</sup> D: Measuring Distance \*2 Standard deviation based on DIN18723

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