SPECIFICATIONS

Angle Measurement

Measurement Method..Absolute Encoding
Minimum Readout...1″/5″/10″
　　　　　　　　　　　　（0.3mgon/1.5mgon/3mgon）adjustable
Accuracy[1]..2″

Distance Measurement (HTS-220 with Reflector)

Single Prism.....................3000m (9,842ft.) under good condition[3]
Three Prisms..................6000m (19,685ft.) under good condition[3]
Reflective Sheet..800m (2,624 ft.)
Accuracy...2 mm +2ppm
Measuring Time (Fine/Quick/Tracking)........................1.5s/1s/ 0.5s

Distance Measurement (HTS-220R Reflectorless)

Reflectorless[2] Range..350m (1,148 ft.)
Single Prism...>7500m (24,606ft.)
Accuracy..3mm+2ppm
Measuring Time...1.5s

Telescope

Magnification..30X
Field of View...1°30′ (2.7m at 100m)
Minimum Focusing Distance...1.5m
Reticle...Illuminated

Compensator

System.................Single-axis liquid tilt sensor/Dual-axis (optional)
Working Range...±3′
Setting Accuracy...1″

Communication

Bluetooth
Interface..Standard RS232, SD card[4],
                                                                   USB pen drive, mini-B
Internal Data Memory.......................................Approx. 20,000 Points
Data Format...ASCII

Operation

Operation system.....................................Real-time Operating System
Display......High resolution backlight black and white display with

contrast adjustment/ Graphics..................................280 x 160 pixels
                                                     Character: 6 lines x 25 characters
Keyboard.................2 sides Alphanumeric backlit crystal keyboard

Laser Plummet

Type...Laser point, 4 brightness levels
                                                   adjustment / Optical plummet (optional)
Centering Accuracy.........................1 mm at 1.5m instrument height

Power Supply

Battery Type...Rechargeable Li-ion battery
Voltage/Capacity..............................ZBA-400: 7.4V (DC) / 3000mAh
Operating Time With ZBA-400..............................Optimal 16 hours[5]
     (Continuous angle measurement every 30 seconds) /10 hours
                                                                                                 (typical)
Measuring Times..Approx. 12000 times

Weight

Weight (Incl. Battery&Tribrach)..................Approx. 5.5kg (12.1lb.)

Environmental

Operating Temperature...............-20℃ ~ + 50℃ (-4℉ to + 122℉)
Storage Temperature..................-40℃ ~ + 70℃ (-40℉ to + 158℉)
Dust&Water Proof (IEC60529 Standard)/Humidity.................IP65,
                                                                       95%, non-condensing

[1] Standard deviation based on ISO 17123-3.

[2] Calculated by Kodak Gray Card white side (90% reflective), exact distance depends on
    measuring object, observation and environment conditions.

[3] Good condition: no haze, visibility about 40km, moderate sunlight,

[4] Maximum extension up to 32GB.

[5] New battery at 25℃, 24 hours continuously angel measurement mode.

Descriptions and specifications are subject to change without notice

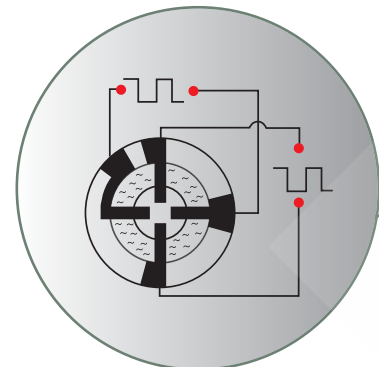# HI‣TARGET

HTS-220/R
Total Station

FC CE

High-performance MCU

Absolute Encoding

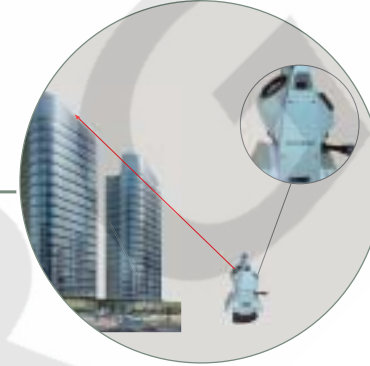Calibration Software

Dual-axis Compensation

Bluetooth

Diagonal Eyepiece

Data Transfer Software

Backlight

Dual-axis Compensation

The HTS-220/R is configured with advanced dual-axis compensator for auto error elimination and auto accuracy compensation.

Absolute Encoding

The absolute encoding disk ensures high accuracy, efficiency and stable performance. Initialization is needless but to measure the angle immediately as the HTS-220/R is turned on. The azimuth information won't be missed even the HTS-220/R is power-off unexpectedly.

High-performance MCU

The STM32 MCU based on ARM Cortex™-M processor enables the HTS-220/R has extra high processing speed and low-power consumption.

Bluetooth

The Bluetooth wireless technology makes HTS-220/R accessible to any data collector for real-time communication. The third party field software such as Carlson SurvCE is fully compatible with the HTS-220/R.

Data Storage

Diversified data transfer options such as SD card, USB pen drive, mini-B interface.

Backlight

The display and keyboard with backlight for working in the dark.

Diagonal Eyepiece

Support diagonal eyepiece for observations at steep line of sight.

Calibration Software

The proprietary HI-TARGET Calibration software is accessible for real-time diagnosis to ensure trouble-free operation.

Data Transfer Software

The proprietary HI-TARGET data transfer software supports different type of output data format, which can be used in AutoCAD or other brands' post processing software.