

# SC-7217A

Made in Japan

# SC-7215A

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## Max. Frequency 3GHz 12 digits/sec display

- Simple to use. 1 key for 1 action.
- Improves line inspection work by comparison and statistical operation
- Easy to change unit conversion by scaling operational function
- Improves regular inspection work by panel setup.
- USB, LAN, Digital I/O are standard.
- High stability clock oscillator option is available.

Specifications

		SC-7217A	SC-7215A
CH-A, CH-B	Input impedance	50Ω ±1.5% / 1MΩ ± 1.5% //16pF ±3pF	
	Input withstand voltage	50Ω / 1MΩ	7Vrms / 200Vpk
	Frequency BW	DC / AC	DC ~ 450MHz / 10Hz ~ 450MHz
	Input voltage range	ATT OFF / ON	± 2.5V / ± 50V
	Trigger level accuracy	ATT OFF / ON	±2% ±25mV / ± 2.5% ±500mV
	Slope switching/ Bandwidth limitation/ Noise rejection		+/- / 10kHz / OFF/ON
EXT-B	Input signal range	Pulse width/ Frequency	500ns min / 1MHz max
CH-C	Input impedance/ SWR/ Max. input electrical power		50Ω AC coupling / 2.0 以下 / +30dBm
	Frequency BW		100MHz ~ 3GHz
	AGC		ON/OFF
	Burst detection		ON/OFF
Detection sensitivity/ Burst detection delay time		~ 1.2GHz : -20dBm, ~ 3GHz : -10dBm / 10us	
Measurement functions	FREQ A, FREQ B		Max. 12-digit/sec (at 1second gate)
	Measurement range		Single: 6mHz to 250MHz, time / EXT-B gate: 12mHz to 450MHz (Cycle of measured signal should be 1/2 of gate time or less.)
	Gate selection		Single / EXT-B / Time (set at 10μs to 10s 10 <sup>n</sup> ) (n: integer)
	FREQ C		Max. 12-digit/sec (at 1second gate)
	Measurement range/ Gate selection		100MHz to 3GHz, 1/16 pre-scaler
	FREQ LINE		45Hz to 440Hz / 0.1s/1s/10s (More information is available on "Time gate".)
	Measurement range		Single : 4ns ~ 166s (Cycle of measured signal should be 1/2 of gate time or less.)
	Gate selection		Time / EXT-B gate: 2.2ns to 83s
	PERIOD A		Single / EXT-B / Time (set at 10μs to 10s 10 <sup>n</sup> ) (n: integer) (More information is available on "Time gate".)
	DUTY A		Input signal range Pulse width · FREQ 6ns min / 80MHz max
	Measurement range		Single/ Time 0.01u ~ 99.999,999,99% / 0.2u ~ 99.999,999,8%
	Gate selection		Single / Time (More information is available on "Time gate".)
	PULSE WIDTH A		Input signal range Pulse width · FREQ 6ns min / 80MHz max
	Measurement range		Single/ Time 6ns to 171s / 6ns to approximately 1/2 gate time
	Gate selection		Single / Time (More information is available on "Time gate".)
	TIME INTERVAL A→B		Input signal range Pulse width · FREQ 6ns min / 80MHz max
	Measurement range		Single/ Time 6ns ~ 10,995s / 6ns to approximately 1/2 gate time
	Gate selection		Single / Time (More information is available on "Time gate".)
	FREQ A/B		Input signal range/ Frequency 250MHz max
	Measurement range/ Gate selection		1 E-9 to 1 E+9 / Time (set at 10μs to 10s 10 <sup>n</sup> ) (n: integer)
PHAS A→B		Input signal range Pulse width · FREQ 6ns min / 80MHz max	
Measurement range		Single/ Time 0.1u ~ 359.999,999,9° / 1u ~ 359.999,999° (Cycle of measured signal should be 1/2 of gate time or less.)	
Gate selection, Pulse width · FREQ		Single / Time (Please see "Time gate" for more info for this.	
TOT A		Input signal range 2ns min / 250MHz max	
Gate selection/ Measurement range		MANUAL/EXT-B/ Time (More information is available on "Time gate".) / 0 ~ 4,294,967,295 counts	
Peak voltage measurement		Frequency / Speed 150Hz ~ 150MHz / 2 seconds or less	
Voltage		ATT OFF / ATT ON ± 2.5V / ± 50V	
Time gate	Range		10μs ~ 10s
	Resolution		10μs ~ 990μs : 10μs, 0.1ms ~ 9.9ms : 0.1ms, 1ms ~ 99ms : 1ms, 10ms ~ 990ms : 10ms, 0.1s ~ 10s : 0.1s FREQ LINE: 0.1s ~ 10s
Measurement operations			Repeat/ Single/HOLD / Smoothing (moving average), scaling, compare, statistics (MAX, MIN, σ, average)
Panel setup/ Saving			Internal memory (10) or USB memory/ Max. 500,000 kinds (volatile memory)
Internal standard clock			Temperature characteristic +/- 1ppm (range of 0 to +40°C with +25°C as the standard)
Interface			Temporal change/ Short-time stability ±0.1ppm/month, ±1ppm/year / ±1ppb/s
10MHz STD IN			USB/ LAN/ DIO USB2.0 HS / 100base-TX / Output: HI/LO/GO/BUSY
Marker /STD Output			Input impedance/ Input frequency/ Input sensitivity 850Ω (10MHz) AC coupling / 10MHz ± 50Hz / 100mVrms
Output impedance/ Marker output/ STD output			STD / Marker selected and output with the setting
Options (factory option)	OCXO (High stable clock)		50Ωs +/- 10% / +1Vo-p (0V output during measurement) / 10 MHz sine wave 1Vp-p or more (with 50Ωs at the terminal)
	SC-715	Temperature characteristics	+/- 20ppb (range of 0 to +40°C with +25°C as the standard)
		Aging rate	+/- 10ppb/day (Frequency change of a day on the basis of the frequency 48 hours later. At +25°C)
	SC-716	Temperature characteristics	±100ppb/year (Frequency change of one year on the basis of frequency 10 days after the power supply injection. At +25°C.)
Aging rate		±5ppb (range of 0 to +40°C with +25°C as the standard)	
Interface			±0.5ppb/day (Frequency change of one year on the basis of frequency 30 days after the power supply injection. At +25°C.)
Power supply			±50ppb/year (Frequency change of one year on the basis of frequency 30 days after the power supply injection. At +25°C.)
Voltage/ Frequency			GPIB (conforming to IEEE488-1 with full remote functions.) RS-232C, host for connecting the USB memory (for storage only)
Power consumption			100V ~ 240V ±10% / 50 ~ 60Hz ±5% (100V ~ 240V) / 400Hz ±10% (100V ~ 120V)
External dimensions			70VA(35W) max
Accessory			210W × 99H × 353D mm/ 3kg
Environment			Product users' guide x 1, instructions (CD) x 1, power cable x 1.
			0°C to +40°C with 80%RH or less and no condensation

Line up

Product name	Model
Universal counter	SC-7217A
	SC-7215A
CH-A/CH-B Rear input for SC-7215A	SC-709
CH-A/CH-B/CH-C Rear input for SC-7217A	SC-710
GPIB interface	SC-711
USB host interface	SC-713

Product name	Model
RS-232 interface	SC-714
High stable clock option	SC-715
	SC-716