

## RUBIDIUM Clock

### Features

- Operating Temperature: -40°C~+80°C
- Temperature Stability available to 0.05ppb
- Rapid, reliable warm-up time ≤ 4 minutes
- Power consumption ≤130mW
- Short-term stability (Allan Deviation) of 1E-10 at TAU=1 sec Ultra-tight frequency

tolerance ±0.05ppb

### Specifications general

Model	Operating temp. (°C)	Frequency Accuracy (at shipment)	Short-term Stability	Phase Noise	Aging	Steady @25°C	Holdover (µs@24h)	Warm up time @25°C	Dimension (mm)	Cross information
R55	-40 °C ~ +80 °C	±5E-11	$\leq 5E-11/1s$ $\leq 3E-11/10S$ $\leq 1E-11/100S$	$\leq -90dBc/Hz @10Hz$ $\leq -120dBc/Hz @100Hz$ $\leq -140dBc/Hz @1kHz$ $\leq -145dBc/Hz @10kHz$	$\leq 5E-12/day$	$\leq 3W@12V$	$\leq 1\mu s$	$\leq 10$ minutes	50.8*50.8*17.8	MAC-SA55 (Microchip)
R55	-20 °C ~ +70 °C	±2E-10	$\leq 1E-10/1\sim 100s$	$\leq -137dBc/Hz @1kHz$	$\leq 4E-11/day$	$\leq 8W$	$\leq 3\mu s$	$\leq 10$ minutes		N/A
R32	-20 °C ~ +60 °C	±1E-10	$\leq 5E-11/1s$ $\leq 2E-11/10S$ $\leq 5E-12/100S$	$\leq -85dBc/Hz @10Hz$ $\leq -115dBc/Hz @100Hz$ $\leq -135dBc/Hz @1kHz$ $\leq -140dBc/Hz @10kHz$	$\leq 5E-12/day$	$\leq 6W$	N/A	$\leq 8$ minutes		N/A

Model	Operating temp. (°C)	Frequency Accuracy (at shipment)	Short-term Stability	Phase Noise	Aging	Steady @25°C	Holdover (µs@24h)	Warm up time @25°C	Dimension (mm)	Cross information
R45	-10°C~+70°C	±5E-11	≤3E-10/1s ≤1E-10/10S ≤3E-11/100S	≤-80dBc/Hz @10Hz ≤-113dBc/Hz @100Hz ≤-125dBc/Hz @1kHz ≤-135dBc/Hz @10kHz	≤3E-11/day	≤130mW	≤5us	≤ 4 minutes	41*35*12	SA.45S (Microchip)
	-40°C~+70°C		≤1E-10/1s ≤3E-11/10S ≤1E-11/100S	≤-90dBc/Hz @10Hz ≤-120dBc/Hz @100Hz ≤-140dBc/Hz @1kHz ≤-145dBc/Hz @10kHz	≤1E-11/day	≤1.8W	≤3us	≤ 5 minutes		

## Applications

- Satellite timing and frequency control Satellite clock reference
- LTE base stations
- Smart grid
- Assured position, navigation and timing(PNT)
- Underwater sensor systems Test and measurement
- Data center timing card

