

Digital Lock-in Amplifier comparison chart

⊙ : Equipped – : Not equipped

	LI5660	LI5655	LI5650	LI5645
Frequency Range	0.5 Hz to 11 MHz	0.5 Hz to 3 MHz	1 mHz to 250 kHz	1 mHz to 250 kHz
Signal Input	Voltage (A, A-B, C ,HF), Current	Voltage (A, A-B), Current	Voltage (A, A-B), Current	Voltage (A, A-B)
10 Vrms input	⊙ (C input , 0.5 Hz to 3 MHz)	–	–	–
HF input	⊙ (HF input ,10 kHz to 11 MHz)	–	–	–
Sensitivity	A, A-B : 10 nV to 1 V F.S. (0.5 Hz to 3 MHz) C : 1 mV to 10 V F.S. (0.5 Hz to 3 MHz) HF : 1 mV to 1 V F.S. (10 kHz to 11 MHz) I : 10 fA to 1 μA F.S.	10 nV to 1 V F.S. (0.5 Hz to 3 MHz) 10 fA to 1 μA F.S.	10 nV to 1 V F.S. (1 mHz to 250 kHz) 10 fA to 1 μA F.S.	10 nV to 1 V F.S. (1 mHz to 250 kHz) –
Input Referred Noise Voltage (supplement value)	4.5 nV/ $\sqrt{\text{Hz}}$	4.5 nV/ $\sqrt{\text{Hz}}$	4.5 nV/ $\sqrt{\text{Hz}}$	4.5 nV/ $\sqrt{\text{Hz}}$
PSD	2-phase, 2 PSDs	2-phase, 2 PSDs	2-phase, 2 PSDs	2-phase, 1 PSDs
Dynamic Reserve	100 dB	100 dB	100 dB	100dB
Time Constant	1 μs to 50 ks	1 μs to 50 ks	5 μs to 50 ks	5 μs to 50 ks
Analog Output Max. Update Rate	Approx. 1.5 M samples/sec.	Approx. 1.5 M samples/sec.	Approx. 780 k samples/sec.	Approx. 780 k samples/sec.
Fractional Harmonic Measurements	⊙ (1 to 63) / (1 to 63) of fundamental wave	⊙ (1 to 63) / (1 to 63) of fundamental wave	⊙ (1 to 63) / (1 to 63) of fundamental wave	⊙ (1 to 63) / (1 to 63) of fundamental wave
Dual Frequency Simultaneous Measurements	⊙	⊙	⊙	–
External 10 MHz Synchronous	⊙	⊙	⊙	⊙
Measurement Parameter	X, Y, R, θ, DC, NOISE	X, Y, R, θ, DC, NOISE	X, Y, R, θ, DC, NOISE	X, Y, R, θ, DC, NOISE
Interfaces	USB, GPIB, RS-232, LAN	USB, GPIB, RS-232, LAN	USB, GPIB, RS-232, LAN	USB, GPIB, RS-232, LAN
Dimensions (W×H×D:mm)	430 × 88 × 400	430 × 88 × 400	430 × 88 × 400	430 × 88 × 400
Weight (Approx.)	7.5 kg	7.5 kg	7.5 kg	7.5 kg