

Synchronous Ethernet (SyncE) Selector Guide

Timing Card

Part	Description	DPLLs	BW (Hz)	Inputs	Input Frequency	Embedded PPS & EPP2S	Diff. Outputs	CMOS Outputs	Output Frequency	Low- Jitter APLLs	GP Clock Gen	Jitter (ps _{RMS})	Pkg size (mm)
ZL30142	Single Ch SyncE DPLL - 1GbE	1	0.1m-890	3 SE	2k, N x 8K, SDH, SyncE		1	2	2K, N x 8K, SDH, SyncE	1	1	1.0	9 x 9
ZL30143	Dual Ch SyncE DPLL - 1GbE	2	0.1m-890	8 SE	2k, N x 8K, SDH, SyncE		2	6	2K, N x 8K, SDH, SyncE	1	2	1.0	9 x 9
ZL30161	Any-Freq. Single Ch SyncE PLL/NCO - 1GbE/10GbE	1 or (1 NCO)	0.1m-1k	11	1 Hz-750 MHz		6	6	1 Hz-750 MHz	3	0	0.67	13 x 13
ZL30162	Any-Freq. Quad Ch SyncE PLL/NCO - 1GbE/10GbE	4 or (4 NCO)	0.1m-1k	11	1 Hz-750 MHz		8	8	1 Hz-750 MHz	4	0	0.67	13 x 13
ZL30163	Any-Freq. Dual Ch SyncE PLL/NCO - 1GbE/10GbE	2 or (2 NCO)	0.1m-1k	11	1 Hz-750 MHz		8	8	1 Hz-750 MHz	4	0	0.67	13 x 13
ZL30164	Any-Freq. Triple Ch SyncE PLL/NCO - 1GbE/10GbE	3 or (3 NCO)	0.1m-1k	11	1 Hz-750 MHz		8	8	1 Hz-750 MHz	4	0	0.67	13 x 13
ZL30621	Single Ch SyncE PLL/NCO Small Footprint - 10GbE *	1 or (1 NCO)	0.1m-10	2 D/SE + 1 SE	8 kHz-1250 MHz		3	6	<1 Hz-1035 MHz	1	0	0.26	5 x 10
ZL30622	Single Ch SyncE PLL/NCO Small Footprint - 10GbE	1 or (1NCO)	0.1m-500	2 D/SE + 1 SE	8 kHz-1250 MHz		3	6	<1 Hz-1035 MHz	1	0	0.26	5 x 5
ZL30623	Dual Ch SyncE PLL/NCO Small Footprint - 10GbE	2 or (2 NCO)	0.1m-500	4 D/SE + 1 SE	8 kHz-1250 MHz		6	12	<1 Hz-1035 MHz	2	0	0.26	5 x 10
ZL30601	Any-Freq. Single Ch SyncE PLL/NCO - 10GbE/40GbE/100GbE	1 or (1 NCO)	0.1m-470	5 D/10 SE	0.5 Hz-900 MHz	•	6	14	0.5 Hz-900 MHz	2 or 3	1	0.19	10 x 10
ZL30602	Any-Freq. Dual Ch SyncE PLL/NCO - 10GbE/40GbE/100GbE	2 or (2 NCO)	0.1m–470	5 D/10 SE	0.5 Hz-900 MHz	•	6	14	0.5 Hz-900 MHz	2 or 3	1	0.19	10 x 10
ZL30603	Any-Freq. Triple Ch SyncE PLL/NCO - 10GbE/40GbE/100GbE	3 or (3 NCO)	0.1m–470	5 D/10 SE	0.5 Hz-900 MHz	•	6	14	0.5 Hz-900 MHz	2 or 3	1	0.19	10 x 10
ZL30604	Any-Freq. Quad Ch SyncE PLL/NCO - 10GbE/40GbE/100GbE	4 or (4 NCO)	0.1m–470	5 D/10 SE	0.5 Hz-900 MHz	•	6	14	0.5 Hz-900 MHz	2 or 3	1	0.19	10 x 10
ZL30671	Any-Freq. Single Ch SyncE Timing Card PLL/NCO 10GbE/40GbE/100GbE 5G CU, DU, and RU systems	1 or (1 NCO)	0.1m-470	10 D/10 SE	0.5 Hz-900 MHz	•	8	16 + 2	0.5 Hz-1045 MHz	2	1	0.19	11x11
ZL30672	Any-Freq. Dual Ch SyncE Timing Card PLL/NCO 10GbE/40GbE/100GbE 5G CU, DU, and RU systems	2 or (2 NCO)	0.1m-470	10 D/10 SE	0.5 Hz-900 MHz	•	8	16 + 2	0.5 Hz-1045 MHz	2	1	0.19	11x11
ZL30673	Any-Freq. Triple Ch SyncE Timing Card PLL/NCO 10GbE/40GbE/100GbE 5G CU, DU, and RU systems	3 or (3 NCO)	0.1m-470	10 D/10 SE	0.5 Hz-900 MHz	•	8	16 + 2	0.5 Hz-1045 MHz	2	1	0.19	11x11

^{*} Low-jitter operation from any 10MHz TCXO

Abbreviations:

D= Differential. SE= Single-ended. GP= General purpose. NCO= Numerically controlled oscillator. ToP= Timing over packet. SyncE= Synchronous Ethernet. SS= SONET/SDH. FC= Frequency conversion/T4 DPLL.



Synchronous Ethernet (SyncE) Selector Guide

Line Card

Part	Description	DPLLs	BW (Hz)	Inputs	Input Frequency	Embedded PPS & EPP2S	Diff.	CMOS Outputs	Output Frequency	Input Sync Pulses for Alignment		GP Clock Gen	Jitter (ps _{RMS})	Pkg size (mm)
ZL30151	Single Ch SyncE PLL/NCO Small Footprint - 10GbE	1	1–500	2 D/SE + 1 SE	1 kHz-650 MHz		0–3	0–6	<1 Hz-650 MHz		1	0	0.26	5 x 5
ZL30160	Any-Freq Quad Ch SyncE PLL / NCO - 1GbE	4	14–896	4 D/SE	1 kHz-750 MHz		8	4–12	1 kHz-750 MHz		2	2	0.7	11 x 11
ZL30165	Any-Freq Quad Ch SyncE PLL / NCO - 1GbE/10GbE	4 or (4 NCO)	5–896	8 D/SE	1 kHz-750 MHz		8	8	1 kHz-750 MHz	From 1 Hz	4	0	0.67	13 x 13
ZL30166	Any-Freq Triple Ch SyncE PLL / NCO - 1GbE/10GbE	3 or (3 NCO)	5–896	9 D/SE + 2 SE	1 kHz-750 MHz		8	8	1 kHz-750 MHz	From 1 Hz	4	0	0.67	13 x 13
ZL30167	Any-Freq Dual Ch SyncE PLL / NCO - 1GbE/10GbE	2 or (2 NCO)	5–896	9 D/SE + 2 SE	1 kHz-750 MHz		8	8	1 kHz-750 MHz	From 1 Hz	4	0	0.67	13 x 13
ZL30611	Any-Freq Single Ch SyncE PLL / NCO - 10GbE/100GbE	1 or (1 NCO)	14–470	5 D/10 SE	0.5 Hz-900 MHz	<u>z</u>	6	14	0.5 Hz-900 MHz	From 0.5 Hz	2 or 3	1	0.19	10 x 10
ZL30612	Any-Freq Dual Ch SyncE PLL / NCO - 10GbE/100GbE	2 or (2 NCO)	14–470	5 D/10 SE	0.5 Hz-900 MHz	· •	6	14	0.5 Hz-900 MHz	From 0.5 Hz	2 or 3	1	0.19	10 x 10
ZL30614	Any-Freq Quad Ch SyncE PLL / NCO - 10GbE/100GbE	4 or (4 NCO)	14–470	5 D/10 SE	0.5 Hz-900 MHz	<u>z</u>	6	14	0.5 Hz-900 MHz	From 0.5 Hz	2 or 3	1	0.19	10 x 10
ZL30681	Any-Freq Single Ch SyncE PLL / NCO - 10GbE/40GbE/ 100GbE 5G CU, DU, and RU systems	1 or (1 NCO)	14-470	10 D/10 SE	0.5 Hz-900 MHz	2	8	16 + 2	0.5 Hz-1045 MHz	From 0.5 Hz	2	1	0.19	11x11
ZL30682	Any-Freq Dual Ch SyncE PLL / NCO - 10GbE/40GbE/ 100GbE 5G CU, DU, and RU systems	2 or (2 NCO)	14-470	10 D/10 SE	0.5 Hz-900 MHz	7	8	16 + 2	0.5 Hz-1045 MHz	From 0.5 Hz	2	1	0.19	11x11
ZL30683	Any-Freq Triple Ch SyncE PLL / NCO - 10GbE/40GbE/100GbE 5G CU, DU, and RU systems	3 or (3 NCO)	14-470	10 D/10 SE	0.5 Hz-900 MHz	<u>7</u>	8	16 + 2	0.5 Hz-1045 MHz	From 0.5 Hz	2	1	0.19	11x11

Abbreviations:

D= Differential, SE= Single-ended, GP= General purpose, NCO= Numerically controlled oscillator, ToP= Timing over packet, SyncE= Synchronous Ethernet, SS= SONET/SDH, FC= Frequency conversion/T4 DPLL.





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SyncE. 1.2. 8/18