

# 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 (pSRMS)	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	0.65	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	0.65	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	0.65	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	0.65	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	0.25	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	0.25	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	0.25	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	0.18	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	0.18	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	0.18	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	0.18	10 x 10

\* Low-jitter operation from any 10MHz TCXO

## Line Card

Part	Description	DPLLs	BW (Hz)	Inputs	Input Frequency	Embedded PPS & EPP2S	Diff. Outputs	CMOS Outputs	Output Frequency	Input Sync Pulses for Alignment	Low-jitter APLLs	GP Clock Gen	Jitter (pSRMS)	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	0.25	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	0.63	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	0.63	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	0.63	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	•	6	14	0.5 Hz-900 MHz	From 0.5 Hz	2 or 3	1	0.18	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	0.18	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	•	6	14	0.5 Hz-900 MHz	From 0.5 Hz	2 or 3	1	0.18	10 x 10

### 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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