

Exxelia Group

Space Qualified Products & Solutions

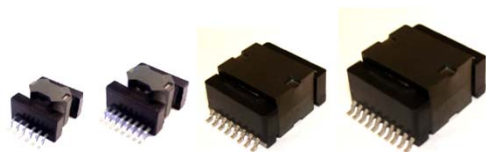
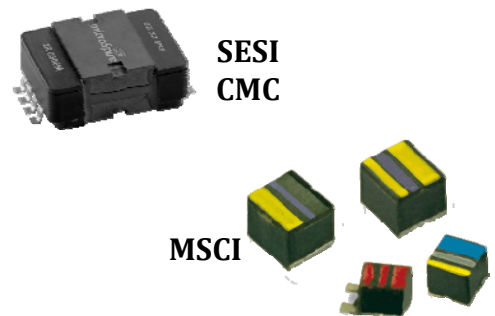


Inductors & Transformers



As a leader in design and manufacturing of magnetic components for severe environment, **MICROSPIRE** has more than 30 years heritage in Space. A wide wide range of **MICROSPIRE**'s inductors and transformers are available according to ESCC generic specification No. 3201, or detailed specifications No. 3201/008, /009 and /010.

Several families of products have entries in **ESA QPL** (MSCI-Miniature Chip Inductors, SESI-SMD Energy Storage Inductors, CMC-Common Mode Chokes) or **EPPL** (Data Bus Transformers).



CCM : Chameleon Concept Magnetics

In addition to QPL & EPPL series, MICROSPIRE is on the way to receive ESA's Capability Approvals for its Toroidal Transfer Moulded Technology and Chameleon Concept Magnetics (CCM).

Typical Space applications for **MICROSPIRE** products include : Common mode chokes, SMD filtering chokes, PFC chokes, Current transformers, Gate Drive transformers, Flyback transformers, Forward transformers, Push-Pull transformers...

Inductors & Transformers



ESCC Specification	MICROSPIRE Product Range & P/N	Main Electrical Characteristics	EPPL / QPL
ESCC3201/008	Miniature Chip Inductors (MSCI)		
	10K	0,01 \Rightarrow 10 μ H 2, 5 and 10 % tolerance 750-87 mA DC current	QPL
	12K	12 \Rightarrow 1000 μ H 2, 5 and 10 % tolerance 110-15 mA DC current	QPL
	20K	0,010 \Rightarrow 1000 μ H 10 % tolerance 1000-25 mA DC current	QPL
	H01	0,38 \Rightarrow 100 μ H 15 % tolerance 1500-100 mA DC current	QPL
ESCC3201/009	SMD Energy Storage Inductors (SESI)		
	SESI 9.1	0,6 μ H 6 A \Rightarrow 700 μ H 0,2 A	QPL
	SESI 14	2,3 μ H 5,8 A \Rightarrow 260 μ H 0,57 A	QPL
	SESI 15	0,9 μ H 14 A \Rightarrow 800 μ H 0,4 A	QPL
	SESI 18	4,2 μ H 9,8 A \Rightarrow 231 μ H 1,34 A	QPL
	SESI 22	3,8 μ H 18,9 A \Rightarrow 1760 μ H 0,8 A	QPL
	SESI 32	4,7 μ H 27 A \Rightarrow 4700 μ H 0,5 A	QPL
ESCC3201/010	Common Mode Chokes (CMC)		
	CMC 15	0,052mH 5,2 A \Rightarrow 4mH 0,5 A	QPL
	CMC 18	0,06mH 7,7 A \Rightarrow 4,9mH 0,7 A	QPL
	CMC 22	0,06mH 7,7 A \Rightarrow 4,9mH 0,7 A	QPL
	CMC 22	0,06mH 11 A \Rightarrow 3,3mH 1,4 A	QPL

Inductors & Transformers

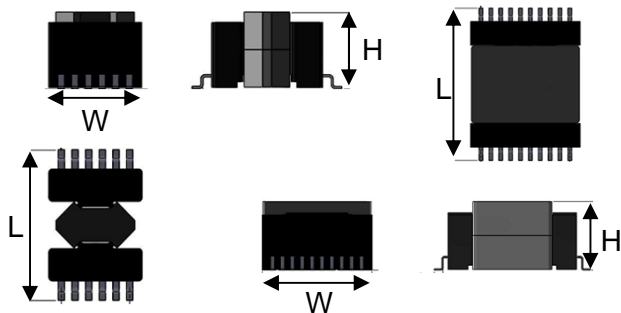
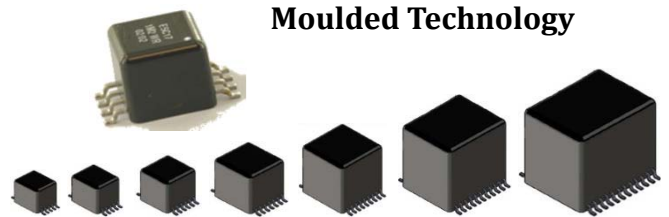


MICROSPIRE Product Range & P/N	Main Electrical Characteristics	EPPL / QPL
MIL-STD-1553 Data Bus Transformers	Impedance $\geq 3k\Omega$, Leakage inductance $\leq 6 \mu H$	
DBIT-X-7P10	H_{max} : 17 mm Through hole	EPPL
DBIT-X-3S	H_{max} : 3,81 mm SMD	EPPL
DBIT-X-5S	H_{max} : 5 mm SMD	EPPL
DBIT-X-7S	H_{max} : 7 mm SMD	EPPL
DBIT-X-7P	H_{max} : 11 mm Through hole	EPPL

ESA Capability Approvals :

MICROSPIRE is in the final path to receive a first Capability Approval for its Toroidal Transfer Moulded Technology manufacturing process.

Toroidal Transfer Moulded Technology



CCM : Chameleon Concept Magnetics

A second Capability Approval will be granted soon to MICROSPIRE's CCM technology (*Chameleon Concept Magnetics*). This brand new epoxy transfer moulding process allows custom designed Transformers and Chokes with **+30% increased power density...**