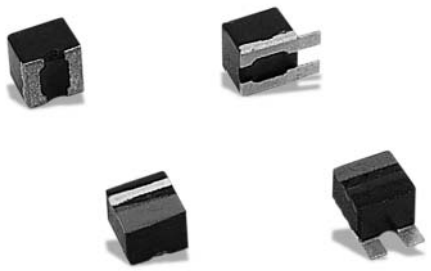
Chip Inductors - MPCI 10000 Series



- esa qualified 3201/008 and as per Mil Spec M83446/5
- Excellent Q values even at high frequencies
- Very high self-resonant frequencies (SFRs)
- Extremely stable inductance values from -55 °C to +125 °C
- With or without tab terminations
- Tinned or gold plated terminations
- Frequency range : 7.9 MHz to 500 MHz
- Operating temperature range : -55 °C to +125 °C
- Weight : 0.07 gram

Electrical Data (25°C)

ID Code	Inductance* µH	Q Min	Test Freq. MHz	SFR Min. MHz	DCR Max. Ω	DC Current mA max	Tol** % Min
MPCI 10 000 010	0.010	60	150	2000	0.025	750	10
MPCI 10 000 012	0.012	60	150	2000	0.025	750	
MPCI 10 000 015	0.015	60	150	1800	0.04	750	
MPCI 10 000 018	0.018	60	150	1500	0.04	750	
MPCI 10 000 022	0.022	51	100	1400	0.04	750	5
MPCI 10 000 027	0.027	51	100	1200	0.04	750	
MPCI 10 000 033	0.033	47	100	1200	0.05	640	
MPCI 10 000 039	0.039	47	100	1200	0.07	600	
MPCI 10 000 047	0.047	47	100	1000	0.08	550	
MPCI 10 000 056	0.056	47	100	900	0.09	520	
MPCI 10 000 068	0.068	47	100	900	0.10	480	
MPCI 10 000 082	0.082	47	100	750	0.11	470	
MPCI 10 000 100	0.10	47	50	620	0.11	470	10
MPCI 10 000 120	0.12	47	50	540	0.11	470	
MPCI 10 000 150	0.15	47	50	450	0.12	450	
MPCI 10 000 180	0.18	51	50	400	0.14	430	
MPCI 10 000 220	0.22	51	50	380	0.20	350	
MPCI 10 000 270	0.27	51	50	340	0.25	310	
MPCI 10 000 330	0.33	51	50	280	0.30	280	
MPCI 10 000 390	0.39	47	50	240	0.45	240	
MPCI 10 000 470	0.47	47	25	210	0.50	230	5
MPCI 10 000 560	0.56	52	25	180	0.55	220	

ID Code	Inductance* µH	Q Min	Test Freq. MHz	SFR Min. MHz	DCR Max. Ω	DC Current mA max	Tol** % Min
MPCI 10 000 680	0.68	52	25	160	0.58	210	5
MPCI 10 000 820	0.82	52	25	130	0.60	200	
MPCI 10 001 000	1.00	52	25	110	0.65	190	
MPCI 10 001 200	1.20	42	7.9	110	0.75	180	2
MPCI 10 001 500	1.50	42	7.9	100	1.1	160	
MPCI 10 001 800	1.80	48	7.9	95	1.2	150	
MPCI 10 002 200	2.20	48	7.9	90	1.3	140	
MPCI 10 002 700	2.70	48	7.9	65	1.5	130	
MPCI 10 003 300	3.30	48	7.9	55	1.8	120	
MPCI 10 003 900	3.90	48	7.9	45	2.0	110	
MPCI 10 004 700	4.70	48	7.9	43	2.3	100	
MPCI 10 005 600	5.60	48	7.9	40	2.5	100	
MPCI 10 006 800	6.80	46	7.9	38	2.6	98	
MPCI 10 008 200	8.20	46	7.9	35	2.8	95	
MPCI 10 010 000	10.0	46	7.9	33	3.3	87	

*** Standard inductance tolerance : ±10 %**

** Tightest achievable tolerances.

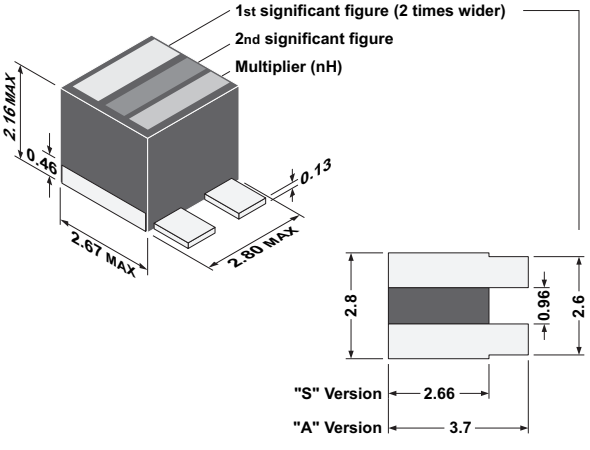
Other inductance values and S parameters on request.

Inductance variation : 35 PPM / °C max. in the range 0.01 to 1.2 µH
80 PPM / °C max. in the range 1.5 to 10 µH

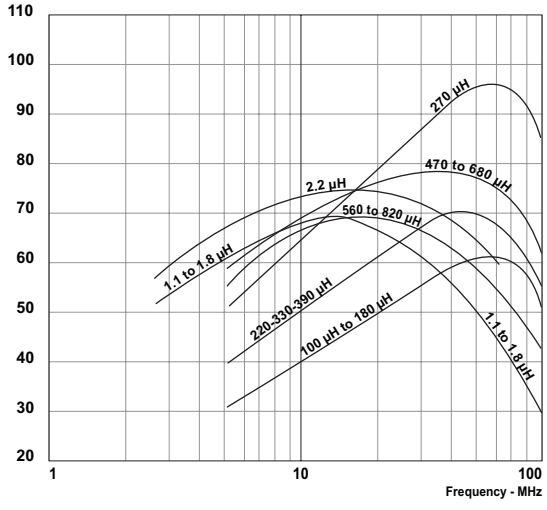
Packaging

Tape and Reel (without tab) : 500 pieces
or Tray : 81 pieces without tab, 49 pieces with tab

Typical Dimensions (mm)



Q vs frequency



Miniature Chip Inductors MSCI 10000

esa QPL Components

MPCI 10000 series are usually installed on Military applications and breadboards for Space applications.

Since January 2003, Microspire has been manufacturing Radio Frequency Fixed Coils, MPCI 10000 series fulfilling ESA ESCC Generic specification N° 3201 and detail specification N° 3201/008.

This range is named MSCI (S for space applications).

This qualification approval includes final production tests Chart II, burn-in and electrical measurements to testing level B Chart III and qualification testing Chart IV.

For procurement, different quality levels are offered :

- Final production tests Chart II
- Burn-in and electrical measurements Chart III with level B or C (as required)
- Lot acceptance testing Chart V if required

Components delivered through this specification need to be processed and inspected in accordance with the Microspire Process Identification Document (P.I.D.).

Each component delivered is traceable to its production lot.

Cross reference chart

Microspire Non-QPL ID Code	Microspire QPL ID Code	ESA SCC Component Part Number
MPCI 10 000 010 x y 10	MSCI 10 000 010 x y 10	3201008 aa b L010 K
MPCI 10 000 012 x y 10	MSCI 10 000 012 x y 10	3201008 aa b L012 K
MPCI 10 000 015 x y 10	MSCI 10 000 015 x y 10	3201008 aa b L015 K
MPCI 10 000 018 x y 10	MSCI 10 000 018 x y 10	3201008 aa b L018 K
MPCI 10 000 022 x y 10/5	MSCI 10 000 022 x y 10/5	3201008 aa b L022 K/J
MPCI 10 000 027 x y 10/5	MSCI 10 000 027 x y 10/5	3201008 aa b L027 K/J
MPCI 10 000 033 x y 10/5	MSCI 10 000 033 x y 10/5	3201008 aa b L033 K/J
MPCI 10 000 039 x y 10/5	MSCI 10 000 039 x y 10/5	3201008 aa b L039 K/J
MPCI 10 000 047 x y 10/5	MSCI 10 000 047 x y 10/5	3201008 aa b L047 K/J
MPCI 10 000 056 x y 10/5	MSCI 10 000 056 x y 10/5	3201008 aa b L056 K/J
MPCI 10 000 068 x y 10/5	MSCI 10 000 068 x y 10/5	3201008 aa b L068 K/J
MPCI 10 000 082 x y 10/5	MSCI 10 000 082 x y 10/5	3201008 aa b L082 K/J
MPCI 10 000 100 x y 10	MSCI 10 000 100 x y 10	3201008 aa b L10 K
MPCI 10 000 120 x y 10	MSCI 10 000 120 x y 10	3201008 aa b L12 K
MPCI 10 000 150 x y 10	MSCI 10 000 150 x y 10	3201008 aa b L15 K
MPCI 10 000 180 x y 10	MSCI 10 000 180 x y 10	3201008 aa b L18 K
MPCI 10 000 220 x y 10	MSCI 10 000 220 x y 10	3201008 aa b L22 K
MPCI 10 000 270 x y 10	MSCI 10 000 270 x y 10	3201008 aa b L27 K
MPCI 10 000 330 x y 10	MSCI 10 000 330 x y 10	3201008 aa b L33 K
MPCI 10 000 390 x y 10	MSCI 10 000 390 x y 10	3201008 aa b L39 K
MPCI 10 000 470 x y 10/5	MSCI 10 000 470 x y 10/5	3201008 aa b L47 K/J
MPCI 10 000 560 x y 10/5	MSCI 10 000 560 x y 10/5	3201008 aa b L56 K/J
MPCI 10 000 680 x y 10/5	MSCI 10 000 680 x y 10/5	3201008 aa b L68 K/J
MPCI 10 000 820 x y 10/5	MSCI 10 000 820 x y 10/5	3201008 aa b L82 K/J
MPCI 10 001 000 x y 10/5	MSCI 10 001 000 x y 10/5	3201008 aa b 1L0 K/J
MPCI 10 001 200 x y 10/5/2	MSCI 10 001 200 x y 10/5/2	3201008 aa b 1L2 K/J/G
MPCI 10 001 500 x y 10/5/2	MSCI 10 001 500 x y 10/5/2	3201008 aa b 1L5 K/J/G
MPCI 10 001 800 x y 10/5/2	MSCI 10 001 800 x y 10/5/2	3201008 aa b 1L8 K/J/G
MPCI 10 002 200 x y 10/5/2	MSCI 10 002 200 x y 10/5/2	3201008 aa b 2L2 K/J/G
MPCI 10 002 700 x y 10/5/2	MSCI 10 002 700 x y 10/5/2	3201008 aa b 2L7 K/J/G
MPCI 10 003 300 x y 10/5/2	MSCI 10 003 300 x y 10/5/2	3201008 aa b 3L3 K/J/G
MPCI 10 003 900 x y 10/5/2	MSCI 10 003 900 x y 10/5/2	3201008 aa b 3L9 K/J/G
MPCI 10 004 700 x y 10/5/2	MSCI 10 004 700 x y 10/5/2	3201008 aa b 4L7 K/J/G
MPCI 10 005 600 x y 10/5/2	MSCI 10 005 600 x y 10/5/2	3201008 aa b 5L6 K/J/G
MPCI 10 006 800 x y 10/5/2	MSCI 10 006 800 x y 10/5/2	3201008 aa b 6L8 K/J/G
MPCI 10 008 200 x y 10/5/2	MSCI 10 008 200 x y 10/5/2	3201008 aa b 8L2 K/J/G
MPCI 10 010 000 x y 10/5/2	MSCI 10 010 000 x y 10/5/2	3201008 aa b 100 K/J/G

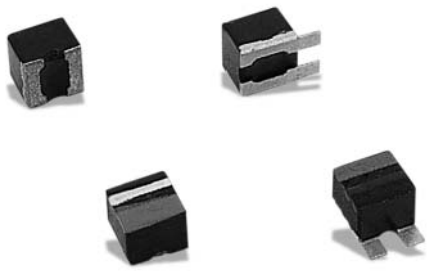
aa	b	K/J/G (tolerance)
aa = **01** for Au Termination	b = **B** for Chart III level B	**K** for ±10%
aa = **02** for SnPb Termination	b = **C** for Chart III level C	**J** for ±5%
		G for ±2%

To Order

MPCI 10 ### ### x y z

MPCI	10	### ###	x	y	z
Radio Frequency Fixed Coils	Size	Inductance Value (nH) from 000 010 to 010 000	Terminations x = **G** for Gold x = **T** for Tinned	Terminations shape y = **S** without tab y = **A** with tab (Not valid for space use)	Tolerance : z = **10** for ±10% z = **5** for ±5% z = **2** for ±2%

Chip Inductors - MPCI 12000 Series



- esa qualified 3201/008 and as per Mil Spec M83446/6
- Excellent Q values even at high frequencies
- Very high self-resonant frequencies (SFRs)
- Extremely stable inductance values from -55 °C to +125 °C
- With or without tab terminations
- Tinned or gold plated terminations
- Frequency range : 790 KHz to 30 MHz
- Operating temperature range : -55 °C to +125 °C
- Weight : 0.07 gram

Electrical Data (25°C)

ID Code	Inductance* µH	Q Min	Test Freq. MHz	SFR Min. MHz	DCR Max. Ω	DC Current mA max	Tol** % Min
MPCI 12 012 000	12	42	2.5	26	2.0	110	2
MPCI 12 015 000	15	44	2.5	24	2.2	105	
MPCI 12 018 000	18	44	2.5	21	2.8	100	
MPCI 12 022 000	22	48	2.5	20	3.5	85	
MPCI 12 027 000	27	49	2.5	19	4.3	75	
MPCI 12 033 000	33	50	2.5	14	5.5	68	
MPCI 12 039 000	39	52	2.5	12	6.5	61	
MPCI 12 047 000	47	53	2.5	11	8.5	54	
MPCI 12 056 000	56	56	2.5	10	12	46	
MPCI 12 068 000	68	53	2.5	9.0	13	42	
MPCI 12 082 000	82	49	2.5	8.0	15	40	
MPCI 12 100 000	100	49	2.5	7.0	18	36	
MPCI 12 120 000	120	37	0.79	6.0	21	34	5
MPCI 12 150 000	150	30	0.79	5.0	26	31	
MPCI 12 180 000	180	30	0.79	5.0	28	29	
MPCI 12 220 000	220	26	0.79	4.5	32	29	

ID Code	Inductance* µH	Q Min	Test Freq. MHz	SFR Min. MHz	DCR Max. Ω	DC Current mA max	Tol** % Min
MPCI 12 270 000	270	26	0.79	4.0	36	26	5
MPCI 12 330 000	330	24	0.79	3.7	42	24	
MPCI 12 390 000	390	24	0.79	3.5	46	23	
MPCI 12 470 000	470	24	0.79	3.0	68	19	
MPCI 12 560 000	560	22	0.79	2.8	77	18	
MPCI 12 680 000	680	20	0.79	2.5	85	17	
MPCI 12 820 000	820	16	0.79	2.0	100	16	
MPCI 12 1000 000	1000	12	0.79	1.5	120	15	

*** Standard inductance tolerance : ±10 %**

** Tightest achievable tolerances.

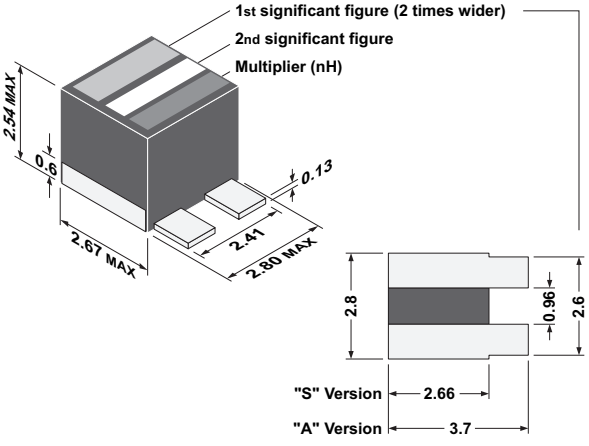
Other inductance values and S parameters on request.

Inductance variation : 80 PPM / °C max. in the range 12 to 100 µH
35 PPM / °C max. in the range 120 to 1000 µH

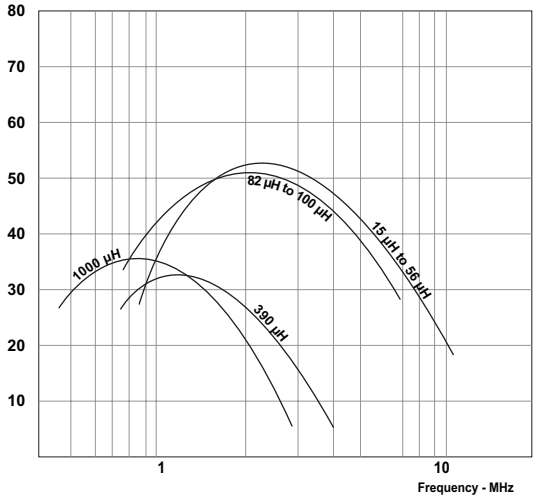
Packaging

Tape and Reel (without tab) : 500 pieces
or Tray : 81 pieces without tab, 49 pieces with tab

Typical Dimensions (mm)



Q vs frequency



Miniature Chip Inductors MSCI 12000
esa QPL Components

MPCI 12000 series are usually installed on Military applications and breadboards for Space applications.

Since January 2003, Microspire has been manufacturing Radio Frequency Fixed Coils, MPCI 12000 series fulfilling ESA ESCC Generic specification N° 3201 and detail specification N° 3201/008.

This range is named MSCI (S for space applications).

This qualification approval includes final production tests Chart II, burn-in and electrical measurements to testing level B Chart III and qualification testing Chart IV.

For procurement, different quality levels are offered :

- Final production tests Chart II
- Burn-in and electrical measurements Chart III with level B or C (as required)
- Lot acceptance testing Chart V if required

Components delivered through this specification need to be processed and inspected in accordance with the Microspire Process Identification Document (P.I.D.).

Each component delivered is traceable to its production lot.

Cross reference chart

Microspire Non-QPL ID Code	Microspire QPL ID Code	ESA SCC Component Part Number
MPCI 12 012 000 x y 10/5/2	MSCI 12 012 000 x y 10/5/2	3201008 aa b 120 K/J/G
MPCI 12 015 000 x y 10/5/2	MSCI 12 015 000 x y 10/5/2	3201008 aa b 150 K/J/G
MPCI 12 018 000 x y 10/5/2	MSCI 12 018 000 x y 10/5/2	3201008 aa b 180 K/J/G
MPCI 12 022 000 x y 10/5/2	MSCI 12 022 000 x y 10/5/2	3201008 aa b 220 K/J/G
MPCI 12 027 000 x y 10/5/2	MSCI 12 027 000 x y 10/5/2	3201008 aa b 270 K/J/G
MPCI 12 033 000 x y 10/5/2	MSCI 12 033 000 x y 10/5/2	3201008 aa b 330 K/J/G
MPCI 12 039 000 x y 10/5/2	MSCI 12 039 000 x y 10/5/2	3201008 aa b 390 K/J/G
MPCI 12 047 000 x y 10/5/2	MSCI 12 047 000 x y 10/5/2	3201008 aa b 470 K/J/G
MPCI 12 056 000 x y 10/5/2	MSCI 12 056 000 x y 10/5/2	3201008 aa b 560 K/J/G
MPCI 12 068 000 x y 10/5/2	MSCI 12 068 000 x y 10/5/2	3201008 aa b 680 K/J/G
MPCI 12 082 000 x y 10/5/2	MSCI 12 082 000 x y 10/5/2	3201008 aa b 820 K/J/G
MPCI 12 100 000 x y 10/5/2	MSCI 12 100 000 x y 10/5/2	3201008 aa b 101 K/J/G
MPCI 12 120 000 x y 10/5	MSCI 12 120 000 x y 10/5	3201008 aa b 121 K/J
MPCI 12 150 000 x y 10/5	MSCI 12 150 000 x y 10/5	3201008 aa b 151 K/J
MPCI 12 180 000 x y 10/5	MSCI 12 180 000 x y 10/5	3201008 aa b 181 K/J

Microspire Non-QPL ID Code	Microspire QPL ID Code	ESA SCC Component Part Number
MPCI 12 220 000 x y 10/5	MSCI 12 220 000 x y 10/5	3201008 aa b 221 K/J
MPCI 12 270 000 x y 10/5	MSCI 12 270 000 x y 10/5	3201008 aa b 271 K/J
MPCI 12 330 000 x y 10/5	MSCI 12 330 000 x y 10/5	3201008 aa b 331 K/J
MPCI 12 390 000 x y 10/5	MSCI 12 390 000 x y 10/5	3201008 aa b 391 K/J
MPCI 12 470 000 x y 10/5	MSCI 12 470 000 x y 10/5	3201008 aa b 471 K/J
MPCI 12 560 000 x y 10/5	MSCI 12 560 000 x y 10/5	3201008 aa b 561 K/J
MPCI 12 680 000 x y 10/5	MSCI 12 680 000 x y 10/5	3201008 aa b 681 K/J
MPCI 12 820 000 x y 10/5	MSCI 12 820 000 x y 10/5	3201008 aa b 821 K/J
MPCI 12 1000 000 x y 10/5	MSCI 12 1000 000 x y 10/5	3201008 aa b 102 K/J

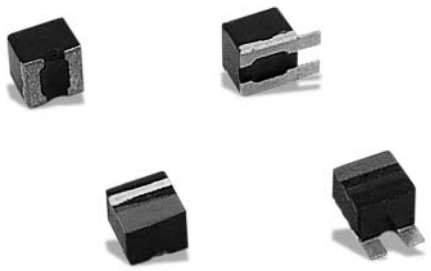
aa	b	K/J/G (tolerance)
aa = **01** for Au Termination aa = **02** for SnPb Termination	b = **B** for Chart III level B b = **C** for Chart III level C	**K** for ±10% **J** for ±5% **G** for ±2%

To Order

MPCI 12 ### ### x y z

MPCI	12	### ###	x	y	z
Radio Frequency Fixed Coils	Size	Inductance Value (nH) from 012 000 to 1000 000	Terminations x = **G** for Gold x = **T** for Tinned	Terminations shape y = **S** without tab y = **A** with tab (Not valid for space use)	Tolerance : z = **10** for ±10% z = **5** for ±5% z = **2** for ±2%

Chip Inductors - MPCI 20000 Series



- esa qualified 3201/008 and as per Mil Spec M83446/10
- Excellent Q values even at high frequencies
- Very high self-resonant frequencies (SFRs)
- Extremely stable inductance values from -55 °C to +125 °C
- With or without tab terminations
- Tinned or gold plated terminations
- Frequency range : 790 KHz to 500 MHz
- Operating temperature range : -55 °C to +125 °C
- Weight : 0.15 gram

Electrical Data (25°C)

ID Code	Inductance* µH	Q Min	Test Freq. MHz	SFR Min. MHz	DCR Max. Ω	DC Current mA max	Tol** % Min
MPCI 20 000 010	0.010	60	150	2000	0.04	1000	10
MPCI 20 000 012	0.012	70	150	1800	0.04	1000	
MPCI 20 000 015	0.015	75	150	1500	0.04	1000	
MPCI 20 000 018	0.018	75	150	1500	0.04	1000	
MPCI 20 000 022	0.022	60	100	1300	0.05	1000	5
MPCI 20 000 027	0.027	60	100	1300	0.05	1000	
MPCI 20 000 033	0.033	60	100	1000	0.05	1000	
MPCI 20 000 039	0.039	60	100	1000	0.06	900	
MPCI 20 000 047	0.047	65	100	800	0.06	900	
MPCI 20 000 056	0.056	65	100	760	0.06	900	
MPCI 20 000 068	0.068	65	100	700	0.07	840	
MPCI 20 000 082	0.082	65	100	650	0.07	840	
MPCI 20 000 100	0.100	65	50	570	0.07	840	10
MPCI 20 000 120	0.120	65	50	520	0.07	840	
MPCI 20 000 150	0.150	75	50	400	0.08	790	
MPCI 20 000 180	0.180	75	50	360	0.08	790	
MPCI 20 000 220	0.220	70	50	320	0.08	790	
MPCI 20 000 270	0.270	70	50	270	0.10	700	
MPCI 20 000 330	0.330	70	50	240	0.10	700	
MPCI 20 000 390	0.390	70	50	220	0.10	700	
MPCI 20 000 470	0.470	70	25	190	0.14	590	5
MPCI 20 000 560	0.560	70	25	170	0.19	510	
MPCI 20 000 680	0.680	70	25	160	0.26	430	
MPCI 20 000 820	0.820	75	25	150	0.30	400	
MPCI 20 001 000	1.00	75	25	130	0.34	380	
MPCI 20 001 200	1.20	65	7.9	120	0.45	330	2
MPCI 20 001 500	1.50	65	7.9	110	0.57	290	
MPCI 20 001 800	1.80	65	7.9	100	0.72	260	
MPCI 20 002 200	2.20	65	7.9	80	0.90	230	
MPCI 20 002 700	2.70	65	7.9	60	1.10	210	
MPCI 20 003 300	3.30	60	7.9	50	1.20	200	
MPCI 20 003 900	3.90	60	7.9	45	1.40	180	
MPCI 20 004 700	4.70	60	7.9	42	1.60	170	
MPCI 20 005 600	5.60	65	7.9	40	1.80	160	
MPCI 20 006 800	6.80	65	7.9	37	2.40	140	
MPCI 20 008 200	8.20	65	7.9	34	3.00	130	2
MPCI 20 010 000	10.0	65	7.9	29	3.50	120	
MPCI 20 012 000	12.0	60	2.5	27	3.60	118	
MPCI 20 015 000	15.0	60	2.5	22	3.70	115	
MPCI 20 018 000	18.0	60	2.5	17	3.80	114	
MPCI 20 022 000	22.0	60	2.5	16	3.90	113	
MPCI 20 027 000	27.0	65	2.5	15	4.00	110	
MPCI 20 033 000	33.0	65	2.5	14	5.00	100	
MPCI 20 039 000	39.0	65	2.5	13	7.00	84	
MPCI 20 047 000	47.0	70	2.5	12	8.00	79	
MPCI 20 056 000	56.0	70	2.5	11	10.0	70	
MPCI 20 068 000	68.0	65	2.5	10	11.0	67	
MPCI 20 082 000	82.0	60	2.5	9	12.0	64	
MPCI 20 100 000	100	60	2.5	8	13.0	62	
MPCI 20 120 000	120	40	0.79	7	14.0	59	
MPCI 20 150 000	150	40	0.79	6	16.0	56	
MPCI 20 180 000	180	40	0.79	5	18.0	52	
MPCI 20 220 000	220	40	0.79	4	24.0	45	
MPCI 20 270 000	270	40	0.79	3.3	25.0	44	
MPCI 20 330 000	330	40	0.79	3;1	29.0	41	
MPCI 20 390 000	390	40	0.79	2.9	32.0	39	
MPCI 20 470 000	470	35	0.79	2.4	35.0	37	
MPCI 20 560 000	560	35	0.79	2.1	45.0	33	
MPCI 20 680 000	680	35	0.79	1.9	55.0	30	
MPCI 20 820 000	820	30	0.79	1.8	70.0	26	
MPCI 20 1000 000	1000	30	0.79	1.7	80.0	25	

*** Standard inductance tolerance : ±10 %**

** Tightest achievable tolerances.

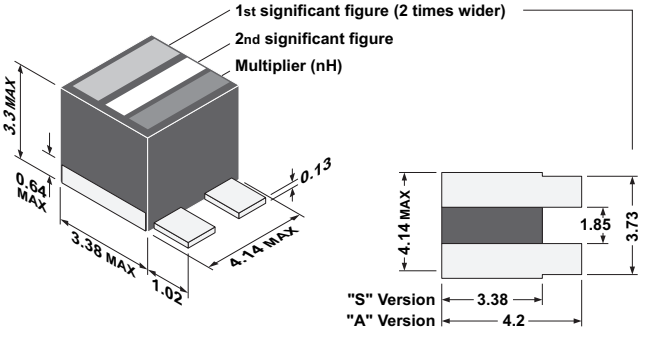
Other inductance values and S parameters on request.

Inductance variation : 60 PPM / °C max. in the range 0.01 to 1 µH
80 PPM / °C max. in the range 1.2 to 10 µH
150 PPM / °C max. in the range 12 to 100 µH
300 PPM / °C max. in the range 120 to 1000 µH

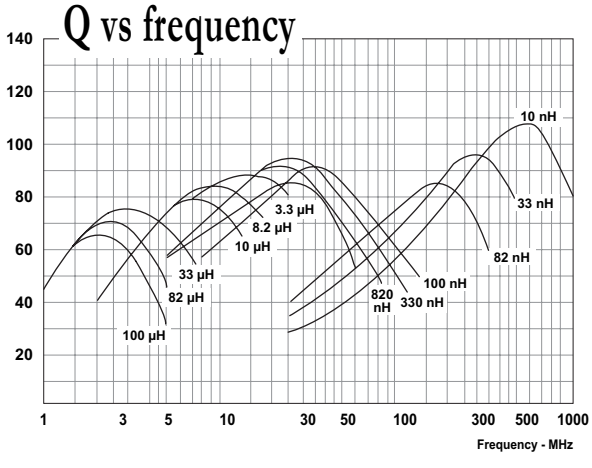
Packaging

Tape and Reel (without tab) : 500 pieces
or Tray : 49 pieces

Typical Dimensions (mm)



Q vs frequency



Miniature Chip Inductors MSCI 20000
esa QPL Components

MPCI 20000 series are usually installed on Military applications and breadboards for Space applications.

Since January 2003, Microspire has been manufacturing Radio Frequency Fixed Coils, MPCI 20000 series fulfilling ESA ESCC Generic specification N° 3201 and detail specification N° 3201/008.

This range is named MSCI (S for space applications).

This qualification approval includes final production tests Chart II, burn-in and electrical measurements to testing level B Chart III and qualification testing Chart IV.

For procurement, different quality levels are offered :

- Final production tests Chart II
- Burn-in and electrical measurements Chart III with level B or C (as required)
- Lot acceptance testing Chart V if required

Components delivered through this specification need to be processed and inspected in accordance with the Microspire Process Identification Document (P.I.D.).

Each component delivered is traceable to its production lot.

Cross reference chart

Microspire Non-QPL ID Code	Microspire QPL ID Code	ESA SCC Component Part Number
MPCI 20 000 010 x y 10	MSCI 20 000 010 x y 10	3201008 aa b L010 K
MPCI 20 000 012 x y 10	MSCI 20 000 012 x y 10	3201008 aa b L012 K
MPCI 20 000 015 x y 10	MSCI 20 000 015 x y 10	3201008 aa b L015 K
MPCI 20 000 018 x y 10	MSCI 20 000 018 x y 10	3201008 aa b L018 K
MPCI 20 000 022 x y 10/5	MSCI 20 000 022 x y 10/5	3201008 aa b L022 K/J
MPCI 20 000 027 x y 10/5	MSCI 20 000 027 x y 10/5	3201008 aa b L027 K/J
MPCI 20 000 033 x y 10/5	MSCI 20 000 033 x y 10/5	3201008 aa b L033 K/J
MPCI 20 000 039 x y 10/5	MSCI 20 000 039 x y 10/5	3201008 aa b L039 K/J
MPCI 20 000 047 x y 10/5	MSCI 20 000 047 x y 10/5	3201008 aa b L047 K/J
MPCI 20 000 056 x y 10/5	MSCI 20 000 056 x y 10/5	3201008 aa b L056 K/J
MPCI 20 000 068 x y 10/5	MSCI 20 000 068 x y 10/5	3201008 aa b L068 K/J
MPCI 20 000 082 x y 10/5	MSCI 20 000 082 x y 10/5	3201008 aa b L082 K/J
MPCI 20 000 100 x y 10	MSCI 20 000 100 x y 10	3201008 aa b L10 K
MPCI 20 000 120 x y 10	MSCI 20 000 120 x y 10	3201008 aa b L12 K
MPCI 20 000 150 x y 10	MSCI 20 000 150 x y 10	3201008 aa b L15 K
MPCI 20 000 180 x y 10	MSCI 20 000 180 x y 10	3201008 aa b L18 K
MPCI 20 000 220 x y 10	MSCI 20 000 220 x y 10	3201008 aa b L22 K
MPCI 20 000 270 x y 10	MSCI 20 000 270 x y 10	3201008 aa b L27 K
MPCI 20 000 330 x y 10	MSCI 20 000 330 x y 10	3201008 aa b L33 K
MPCI 20 000 390 x y 10	MSCI 20 000 390 x y 10	3201008 aa b L39 K
MPCI 20 000 470 x y 10/5	MSCI 20 000 470 x y 10/5	3201008 aa b L47 K/J
MPCI 20 000 560 x y 10/5	MSCI 20 000 560 x y 10/5	3201008 aa b L56 K/J
MPCI 20 000 680 x y 10/5	MSCI 20 000 680 x y 10/5	3201008 aa b L68 K/J
MPCI 20 000 820 x y 10/5	MSCI 20 000 820 x y 10/5	3201008 aa b L82 K/J
MPCI 20 001 000 x y 10/5	MSCI 20 001 000 x y 10/5	3201008 aa b 1L0 K/J
MPCI 20 001 200 x y 10/5/2	MSCI 20 001 200 x y 10/5/2	3201008 aa b 1L2 K/J/G
MPCI 20 001 500 x y 10/5/2	MSCI 20 001 500 x y 10/5/2	3201008 aa b 1L5 K/J/G
MPCI 20 001 800 x y 10/5/2	MSCI 20 001 800 x y 10/5/2	3201008 aa b 1L8 K/J/G
MPCI 20 002 200 x y 10/5/2	MSCI 20 002 200 x y 10/5/2	3201008 aa b 2L2 K/J/G
MPCI 20 002 700 x y 10/5/2	MSCI 20 002 700 x y 10/5/2	3201008 aa b 2L7 K/J/G
MPCI 20 003 300 x y 10/5/2	MSCI 20 003 300 x y 10/5/2	3201008 aa b 3L3 K/J/G
MPCI 20 003 900 x y 10/5/2	MSCI 20 003 900 x y 10/5/2	3201008 aa b 3L9 K/J/G
MPCI 20 004 700 x y 10/5/2	MSCI 20 004 700 x y 10/5/2	3201008 aa b 4L7 K/J/G
MPCI 20 005 600 x y 10/5/2	MSCI 20 005 600 x y 10/5/2	3201008 aa b 5L6 K/J/G
MPCI 20 006 800 x y 10/5/2	MSCI 20 006 800 x y 10/5/2	3201008 aa b 6L8 K/J/G
MPCI 20 008 200 x y 10/5/2	MSCI 20 008 200 x y 10/5/2	3201008 aa b 8L2 K/J/G
MPCI 20 010 000 x y 10/5/2	MSCI 20 010 000 x y 10/5/2	3201008 aa b 100 K/J/G
MPCI 20 012 000 x y 10/5/2	MSCI 20 012 000 x y 10/5/2	3201008 aa b 120 K/J/G
MPCI 20 015 000 x y 10/5/2	MSCI 20 015 000 x y 10/5/2	3201008 aa b 150 K/J/G
MPCI 20 018 000 x y 10/5/2	MSCI 20 018 000 x y 10/5/2	3201008 aa b 180 K/J/G
MPCI 20 022 000 x y 10/5/2	MSCI 20 022 000 x y 10/5/2	3201008 aa b 220 K/J/G
MPCI 20 027 000 x y 10/5/2	MSCI 20 027 000 x y 10/5/2	3201008 aa b 270 K/J/G
MPCI 20 033 000 x y 10/5/2	MSCI 20 033 000 x y 10/5/2	3201008 aa b 330 K/J/G
MPCI 20 039 000 x y 10/5/2	MSCI 20 039 000 x y 10/5/2	3201008 aa b 390 K/J/G
MPCI 20 047 000 x y 10/5/2	MSCI 20 047 000 x y 10/5/2	3201008 aa b 470 K/J/G
MPCI 20 056 000 x y 10/5/2	MSCI 20 056 000 x y 10/5/2	3201008 aa b 560 K/J/G
MPCI 20 068 000 x y 10/5/2	MSCI 20 068 000 x y 10/5/2	3201008 aa b 680 K/J/G
MPCI 20 082 000 x y 10/5/2	MSCI 20 082 000 x y 10/5/2	3201008 aa b 820 K/J/G
MPCI 20 100 000 x y 10/5/2	MSCI 20 100 000 x y 10/5/2	3201008 aa b 101 K/J/G
MPCI 20 120 000 x y 10/5/2	MSCI 20 120 000 x y 10/5/2	3201008 aa b 121 K/J/G
MPCI 20 150 000 x y 10/5/2	MSCI 20 150 000 x y 10/5/2	3201008 aa b 151 K/J/G
MPCI 20 180 000 x y 10/5/2	MSCI 20 180 000 x y 10/5/2	3201008 aa b 181 K/J/G
MPCI 20 220 000 x y 10/5/2	MSCI 20 220 000 x y 10/5/2	3201008 aa b 221 K/J/G
MPCI 20 270 000 x y 10/5/2	MSCI 20 270 000 x y 10/5/2	3201008 aa b 271 K/J/G
MPCI 20 330 000 x y 10/5/2	MSCI 20 330 000 x y 10/5/2	3201008 aa b 331 K/J/G
MPCI 20 390 000 x y 10/5/2	MSCI 20 390 000 x y 10/5/2	3201008 aa b 391 K/J/G
MPCI 20 470 000 x y 10/5/2	MSCI 20 470 000 x y 10/5/2	3201008 aa b 471 K/J/G
MPCI 20 560 000 x y 10/5/2	MSCI 20 560 000 x y 10/5/2	3201008 aa b 561 K/J/G
MPCI 20 680 000 x y 10/5/2	MSCI 20 680 000 x y 10/5/2	3201008 aa b 681 K/J/G
MPCI 20 820 000 x y 10/5/2	MSCI 20 820 000 x y 10/5/2	3201008 aa b 821 K/J/G
MPCI 20 1000 000 x y 10/5/2	MSCI 20 1000 000 x y 10/5/2	3201008 aa b 102 K/J/G

aa	b	K/J/G (tolerance)
aa = **03** for Au Termination	b = **B** for Chart III level B	**K** for ±10%
aa = **04** for SnPb Termination	b = **C** for Chart III level C	**J** for ±5%
		G for ±2%

To Order

MPCI 20 ### ### x y z

MPCI	20	### ###	x	y	z
Radio Frequency Fixed Coils	Size	Inductance Value (nH) from 000 010 to 010 000	Terminations x = **T** for Tinned x = **G** for Tinned	Terminations shape y = **S** without tab y = **A** with tab (Not valid for space use)	Tolerance : z = **10** for ±10% z = **5** for ±5% z = **2** for ±2%

Chip Inductors - MPCI 233 Series

- High temp. RF inductances
- Excellent Q values even at high frequencies
- Very high self-resonant frequencies (SFRs)
- With or without tab terminations
- Tinned or gold plated terminations
- Frequency range : 1 MHz to 1 GHz
- Operating temperature range : -55 °C to +175 °C
- Weight : 0.15 gram

Electrical Data (25°C)

ID Code	Inductance* µH	Q Min	Test Freq. MHz	SFR Min. MHz	DCR Max. Ω	DC Current mA max	Tol** % Min
MPCI 233 000 010	0.010	60	150	2000	0.04	1000	10
MPCI 233 000 012	0.012	70	150	1800	0.04	1000	
MPCI 233 000 015	0.015	75	150	1500	0.04	1000	
MPCI 233 000 018	0.018	75	150	1500	0.04	1000	
MPCI 233 000 022	0.022	60	100	1300	0.05	1000	5
MPCI 233 000 027	0.027	60	100	1300	0.05	1000	
MPCI 233 000 033	0.033	60	100	1000	0.05	1000	
MPCI 233 000 039	0.039	60	100	1000	0.06	900	
MPCI 233 000 047	0.047	65	100	800	0.06	900	
MPCI 233 000 056	0.056	65	100	760	0.06	900	
MPCI 233 000 068	0.068	65	100	700	0.07	840	
MPCI 233 000 082	0.082	65	100	650	0.07	840	
MPCI 233 000 100	0.100	65	50	570	0.07	840	10
MPCI 233 000 120	0.120	65	50	520	0.07	840	
MPCI 233 000 150	0.150	75	50	400	0.08	790	
MPCI 233 000 180	0.180	75	50	360	0.08	790	
MPCI 233 000 220	0.220	70	50	320	0.08	790	
MPCI 233 000 270	0.270	70	50	270	0.10	700	
MPCI 233 000 330	0.330	70	50	240	0.10	700	
MPCI 233 000 390	0.390	70	50	220	0.10	700	
MPCI 233 000 470	0.470	70	25	190	0.14	590	5
MPCI 233 000 560	0.560	70	25	170	0.19	510	
MPCI 233 000 680	0.680	70	25	160	0.26	430	
MPCI 233 000 820	0.820	75	25	150	0.30	400	
MPCI 233 001 000	1.00	75	25	130	0.34	380	
MPCI 233 001 200	1.20	65	7.9	120	0.45	330	2
MPCI 233 001 500	1.50	65	7.9	110	0.57	290	
MPCI 233 001 800	1.80	65	7.9	100	0.72	260	
MPCI 233 002 200	2.20	65	7.9	80	0.90	230	
MPCI 233 002 700	2.70	65	7.9	60	1.10	210	
MPCI 233 003 300	3.30	60	7.9	50	1.20	200	
MPCI 233 003 900	3.90	60	7.9	45	1.40	180	
MPCI 233 004 700	4.70	60	7.9	42	1.60	170	
MPCI 233 005 600	5.60	65	7.9	40	1.80	160	
MPCI 233 006 800	6.80	65	7.9	37	2.40	140	
MPCI 233 008 200	8.20	65	7.9	34	3.00	130	
MPCI 233 010 000	10.0	65	7.9	29	3.50	120	
MPCI 233 012 000	12.0	60	2.5	27	3.60	118	
MPCI 233 015 000	15.0	60	2.5	22	3.70	115	
MPCI 233 018 000	18.0	60	2.5	17	3.80	114	2
MPCI 233 022 000	22.0	60	2.5	16	3.90	113	
MPCI 233 027 000	27.0	65	2.5	15	4.00	110	
MPCI 233 033 000	33.0	65	2.5	14	5.00	100	
MPCI 233 039 000	39.0	65	2.5	13	7.00	84	
MPCI 233 047 000	47.0	70	2.5	12	8.00	79	
MPCI 233 056 000	56.0	70	2.5	11	10.0	70	
MPCI 233 068 000	68.0	65	2.5	10	11.0	67	
MPCI 233 082 000	82.0	60	2.5	9	12.0	64	
MPCI 233 100 000	100	60	2.5	8	13.0	62	
MPCI 233 120 000	120	40	0.79	7	14.0	59	
MPCI 233 150 000	150	40	0.79	6	16.0	56	
MPCI 233 180 000	180	40	0.79	5	18.0	52	
MPCI 233 220 000	220	40	0.79	4	24.0	45	
MPCI 233 270 000	270	40	0.79	3.3	25.0	44	
MPCI 233 330 000	330	40	0.79	3;1	29.0	41	
MPCI 233 390 000	390	40	0.79	2.9	32.0	39	
MPCI 233 470 000	470	35	0.79	2.4	35.0	37	
MPCI 233 560 000	560	35	0.79	2.1	45.0	33	
MPCI 233 680 000	680	35	0.79	1.9	55.0	30	
MPCI 233 820 000	820	30	0.79	1.8	70.0	26	
MPCI 233 1000 000	1000	30	0.79	1.7	80.0	25	

* **Standard inductance tolerance : ±10%**

** Tightest achievable tolerances.

Other inductance values and S parameters on request.

Inductance variation : 60 PPM / °C max. in the range 0.01 to 1 µH
80 PPM / °C max. in the range 1.2 to 10 µH
150 PPM / °C max. in the range 12 to 100 µH
300 PPM / °C max. in the range 120 to 1000 µH

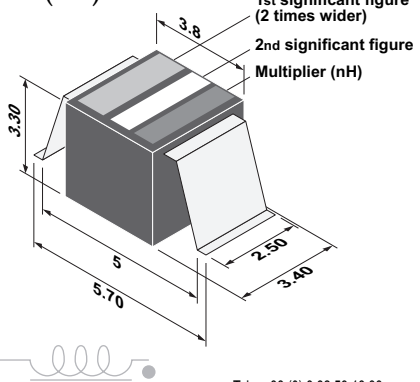
To Order

MPCI 233 ### ### xy

MPCI 233	### ###	x	y
Range	Inductance Value	Terminations x = **G** for Gold x = **T** for Tinned	Tolerance : y = **10** for ±10% y = **5** for ±5% y = **2** for ±2%

Typical Dimensions

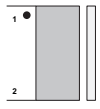
(mm)



Packaging

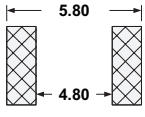
Tray

Connections



PCB Layout

(suggested)



Q vs frequency