



# Frontier Electronics Corp.

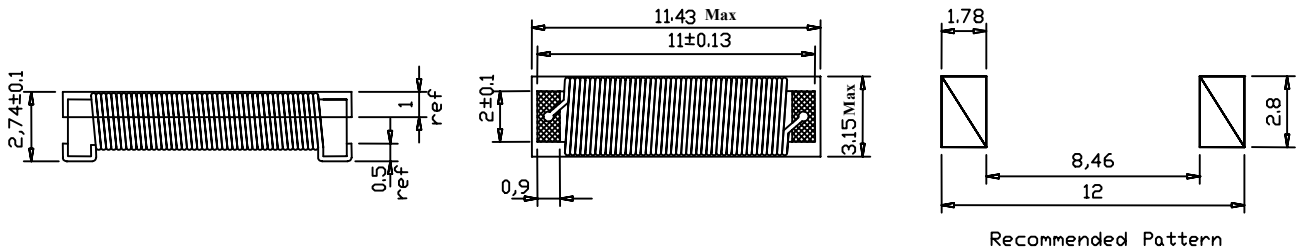
667 E. COCHRAN STREET, SIMI VALLEY, CA 93065  
 TEL: (805) 522-9998 FAX: (805) 522-9989  
 E-mail: [frontiersales@frontierusa.com](mailto:frontiersales@frontierusa.com)  
 Web: [frontierusa.com](http://frontierusa.com)

## RFID Transponder Coils—STC1120-Series

### A. Electrical specification:

Part Number.	L (mH)	Test Freq (KHz)	Q (Min)	Read distance (in./cm)	Sensitivity (mV/μT)	Matching Capacitor (pF)	DCR Max (Ω)	SRF Typ. (KHz)
STC1120-374K	0.37	125	26	22/55.9	9.82	4380	6.5	1800
STC1120-404K	0.40	125	26	23/58.4	10.38	4050	7.1	5000
STC1120-704K	0.70	125	20	25/63.5	13.96	2320	19	6600
STC1120-904K	0.90	125	22	26/66.0	16.06	1800	21	4800
STC1120-115K	1.08	125	24	30/76.2	17.78	1500	24	4300
STC1120-205K	1.97	125	28	34/86.4	24.90	823	31	1750
STC1120-245K	2.38	125	30	37/94.0	28.21	681	34	1700
STC1120-295K	2.89	125	30	37/94.0	32.12	561	42	1900
STC1120-335K	3.30	125	30	38/96.5	34.96	491	48	1425
STC1120-415K	4.15	125	27	39/99.1	41.35	391	70	1620
STC1120-495K	4.90	125	26	38/96.5	47.17	331	93	1150
STC1120-685K	6.80	125	28	41/104.1	61.71	238	110	1080
STC1120-715K	7.10	125	27	42/106.7	65.60	228	114	1050
STC1120-725K	7.20	125	28	40/101.6	66.67	225	114	965
STC1120-815K	8.10	125	28	42/106.7	75.08	200	125	965
STC1120-905K	9.00	125	30	40/101.6	84.64	180	125	725

### B. Mechanical dimensions: (Unit: mm)



**STC1120-series**

### C. General Information:

1. Tolerance: K = ± 10%.
2. Electrical specifications at 25°C.
3. Operating temperature: -40°C to +125°C.
4. L measured with HP 4284A LCR meter.
5. SRF measured with HP 4291B or HP 8753E.
6. DCR measured with 502BC milli-OHM meter.
7. Read distance measured with KEELOQ Transponder Evaluation Kit part number DM303005 from Microchip. Distance was record as the voltage across the resonant circuit dropped below 10mV.
8. Sensitivity measured in accordance with Frontier Electronics Corp. application note “Measuring Sensitivity of Transponder Coils”
9. Matching capacitor vale required for parallel resonant circuit operating at 125 KHz.

**Note: RoHS compliant; for the RoHS parts, we add “-LFR” at the end of the P/N.**