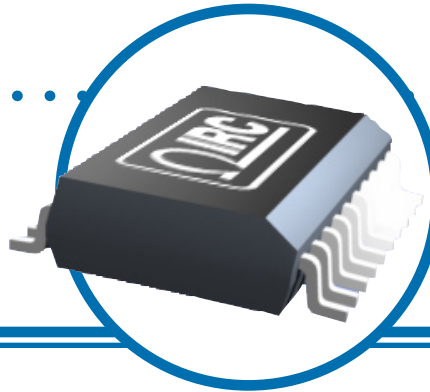# TaNCap® T-Filter Network

T-Filter Series
- Improves signal quality
- High frequency design available
- RoHS compliant and Sn/Pb terminations available
- Reduces unwanted signals while improving signal quality
- Proven TaNCap® technology available in QSOP, SOIC, and TSSOP packages

IRC's TaNCap® T-filter networks are designed for the most demanding low pass filter applications. These TaNSil® technology thin film networks offer attenuation of high frequency signal components with minimal inductive effects. EMI/RFI reduction, improved signal quality and reduction of false triggers in digital circuits while minimizing insertion loss are characteristics of these silicon based filter networks.
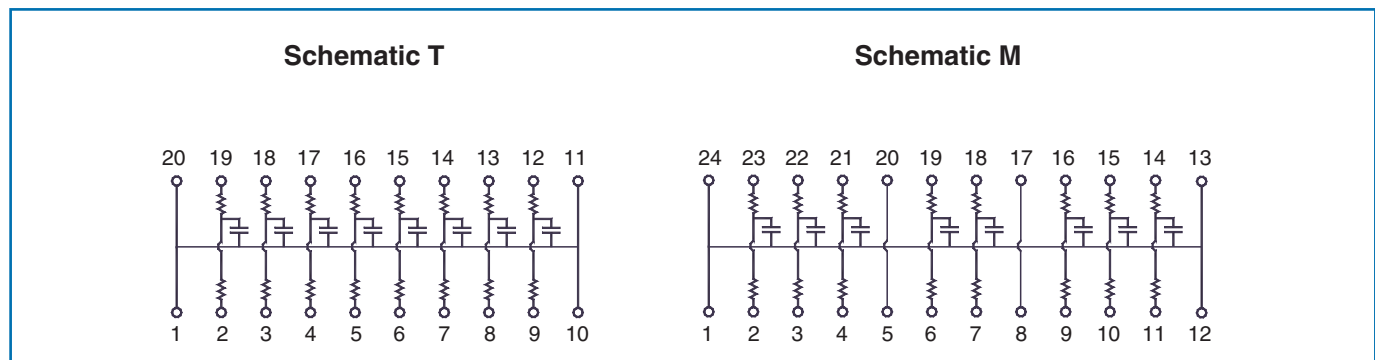
The SOIC, QSOP, and TSSOP packages offer a high level of integration in today's most popular surface mount configurations. Up to 24 discrete components are replaced by one T-filter network.

The TaNCap® series of resistor-capacitor networks are manufactured using IRC's military and space proven tantalum nitride thin film technology. For high reliability combined with superior performance, use IRC TaNCap® T-Filter Networks for your most demanding, high speed analog and digital designs.

Electrical Data

	Range	Tolerance (%)	Breakdown Voltage (volts)	TCR (ppm/°C)	Max. Power Dissipation (watts)	Operating Temp. Range (°C)
Resistors	10Ω to 100Ω	±10	N/A	±100	0.1 per resistor	
Capacitors	10pF to 33pF	±20	200 to 100	N/A	N/A	-55 to +125
	34pF to 200pF	±10	100 to 25			

Schematic Data

Schematic T

Schematic M

A subsidiary of
TT electronics plc

TaNCap® T-Filter Network

Physical Data

Model	Body Type	# Pins	Reference IRC Datasheet
QS20x	QSOP	20	Surface Mount QSOP Termination Networks
QS24x	QSOP	24	Surface Mount QSOP Termination Networks
SL20x	SOIC-W	20	Surface Mount SOIC Termination Networks
SL24x	SOIC-W	24	Surface Mount SOIC Termination Networks
TS20x	TSSOP	20	Surface Mount TSSOP Termination Networks
TS24x	TSSOP	24	Surface Mount TSSOP Termination Networks

Ordering Data

Sample Part Number ········· GUS - QS20T - 330 - K - 470 - M

Family

Model
QS20T, QS20TLF = 20 pin QSOP T Filter
QS24M, QS24MLF = 24 pin QSOP High Frequency T Filter
SL20T, SL20TLF = 20 pin 0.300" SOIC T Filter
SL24M, SL24MLF = 24 pin 0.300" High Frequency T Filter
TS20T, TS20TLF = 20 pin TSSOP T Filter
TS24T, TS24TLF = 24 pin TSSOP High Frequency T Filter

Note: LF suffix indicates 100% matte tin, Pb-free termination

Resistor Code
3-digit resistance code
Example: 330 = 33Ω, 101 = 100Ω

Resistor Tolerance
K = ±10%, M = ±20%

Capacitor Code
3-digit capacitance code
Example: 470 = 47pF, 101 = 100pF

Capacitor Tolerance
K = ±10%, M = ±20%

Packaging Available
Tubes, Tape & Reel

For additional information or to discuss your specific requirements,
please contact our Applications Team using the contact details below.