

C-Specs

C-Specs are 4-digit codes found at the end of a part number which specify things like reeling, ESR ratings or special testing. These are internal codes to KEMET and may not appear on a customer's BOM. However, they do appear on labels and can cause confusion at receiving. Below are a number of KEMET C-specs (Customer Specifications) which are commonly used.

Note: KEMET allows distributors and customers to use TR for specifying tape and reel or TU for ceramic chips, specifying tape/unmarked. When these abbreviations are used, the KEMET system will automatically apply the appropriate 4-digit code.

Example: C0805C103K5RACTU = C0805C103K5RAC**7800** (7800 = standard tape & reel) ESR rating example: T520D337M004ATE**012** (E for ESR, 012 = 12mOhm)



Commercial Ceramic Chips

Category	Description	C-Spec	Marked
Standard Reeling	7" reel, plastic tape C0805 - C2225 (C0201 - C0603 use paper tape) Typically 4k/reel*	7800	7025
	13" reel, plastic tape C0805 - C2225 (C0201 - C0603 use paper tape) Typically 10k/reel		
	7" reel, paper tape C0201 - C2225 Typically 4000/reel*	7210	7215
	13" reel, paper tape C0201 - C2225 Typically 10,000/reel*	7867	7013
		7411	7040
Quantity-based	7" reels for smaller quantities: Use T+QTY: T500 or T1K0 for 1000 pcs.	Txxx	see above
Bulk Cassette	C0402 = 50,000/cassette, C0603 = 15,000/cassette	9019	N/A
Samples	100 pcs. on strip of tape with feeder tape on each end (for auto insertion) All ceramic p/n's except military. This covers values not included in 3946.	3946	N/A
	Bagged	3810	N/A

Quantities per reel will vary. Typically C0402 = 10,000/reel; C0603 – C1210 = 4000/reel; C1808 – C2225 = 1000/reel
 Samples ordered through KEMET Direct will not show sample C-specs on the label

For information on marking codes and T/R codes for Commercial Ceramic Chips (SMD) reference the following link:
http://www.kemet.com/Lists/ProductCatalog/Attachments/364/KEM_CC101_COMM_SMD.pdf#page=563



Commercial Tantalum Chips

Category	Description	C-Spec	Marked
Standard Reeling	7" reel for T49X, T510, T520, T530, T540 Case size A & B = 2000, C, D & X = 500	N/A*	Standard
	13" reel: T49x, T5xx Case size A = 9000, B = 8000, C = 3000, D = 2500, X = 2k	7280	Standard
Quantity-based	7" reels for smaller quantities: Use T+QTY: T100 or T1K0 for 1000 pcs.	Txxx	Standard
ESR Ratings	For T493, T495, T496, T498, T499, T520, T521, T522, T530, T545. ESR ratings are called out (E+ESR rating) example: E040 = ESR of 40 mOhms; E1K5 = 1500 mOhms	Exxx	Standard
Samples	20 piece increments on a strip of tape	4394	Standard

*Tantalum chips (SMD) come on a 7" reel as a standard, so no reeling spec is necessary

Samples ordered through KEMET Direct will not show a sample C-spec on the label

For information on marking codes and T/R specifications for Tantalum Chips, reference the following link:
http://www.kemet.com/Lists/ProductCatalog/Attachments/254/KEM_T2005_T491.pdf#page=18



Ceramic Leaded Capacitors

Category	Description	C-Spec	Marked
Reeling	Axial: C41x, C420, C430, C440, C1xx, C2xx, CK12, CKR11 - CK16, CKR11 - CKR16	7200	Standard
Reeling	Radial: C3xx, C05x, C06x, MIL-C-11015, MIL-PRF-39014, CKR	7301,7303	Standard
Long Leads	Radial: C31x, C32x, C33x, C34x, C35x	9248	Standard

For reeling specifications for axial and radial ceramics, including package quantities for bulk and reeled parts, link to:
<http://www.kemet.com/Lists/ProductCatalog/Attachments/13/F3101.pdf#page=46>



Tantalum Leaded Capacitors

Category	Description	C-Spec	Marked
Reeling	Axial: T110, T140, T2xx, T32x, CSR, CSS, CX01/05, MIL-PRF-39003	7200	Standard
Reeling	Radial: T330, T340, T35x, T36x, CX02/09, T37x, CX06, MIL-PRF-49137	7301, 7303	Standard

For reeling specifications for axial and radial tantalums, including package quantities for bulk and reeled parts, link to:
<http://www.kemet.com/Lists/ProductCatalog/Attachments/21/F3100.pdf#page=71>



Common Military C-Specs

Series	Description	C-Spec	Marked
CDR (Mil MLCC)	100 pieces per 7" reel. One date code per reel. One year date code.	7185	Standard
CDR (Mil MLCC)	7" reel. One date code per reel (does not specify full reel increment only)	7189	Standard
CDR (Mil MLCC)	7" reel. Full reel increments as designated by chip size. One date code per reel	7370	Standard
CDR (Mil MLCC)	Single date lot code per reel	7956	Standard
Most Mil Products	Single date/lot code per line item	7505	Standard
CWR (Mil Tant.)	Single date/lot code per item + one year date code restriction	7513	Standard
CWR (Mil Tant.)	7" Reels for non-standard quantities, use D+QTY: D100 = 100 pcs/reel	Dxxx	Standard
CWR (Mil Tant.)	Special surge testing	4250, 4251	Standard
T493, T497 COTS	ESR screening and surge testing	6110, 6420	Standard
All Mil Products	Group A/C Test Data - additional charge likely	7502	Standard

Military purchase orders often contain drawing-specific requirements for special testing or data packages which may not be considered standard. If your order references a drawing number or customer part number, KEMET must review the drawing to determine which C-Specs apply. Please do not hesitate to ask for our assistance in review P.O. requirements.

This C-Spec list shows KEMET's most commonly used 4-digit codes. There are many more. If you have a question about what a C-Spec means, please ask your KEMET representative.