

Reason	Code	Date Range	Title	Related Items/Replacement codes	Scope Notes	Search Terms
U14 Memories, Film and Hybrid Circuits						
Retired	U14-H03A	(1987-2008)	Mountings for unpackaged IC chips onto substrate (ceramic, polymer, dielectric)*	U14-H03D to U14-H03H	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes.	
Retired	U14-H03A1	(1987-2008)	Unencapsulated IC chip mounting using (multilayer) ceramic, polymer, semiconductor substrate)*	U14-H05	from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. Used for chip carrier which implies subsequent encapsulation of device once mounted (for encapsulation see U14-H03A3). See also U11-D01 for package details. For general chip carrier substrate aspects see U11-D01A. For high density multilayer interconnect see U14-H03A4. Multilayer ceramic boards are also covered by U14-H03B for structure/material, and by U14-H04A3 for manufacture.	
Retired	U14-H03A2	(1987-2008)	Other chip-to-substrate connection*	U14-H05	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. For solder preforms see also U11-D03A9 (semiconductor mountings and terminals). Prior to 1992 this code included flip chip technology, (from 1992 see U11-E01C).	
Retired	U14-H03A3	(1987-2008)	Encapsulation details for individual chip mounted on substrate*	U14-H05	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. For general aspects regarding multi-chip module, see U11-D01A6 or, for hybrid circuit packages see U14-H03C3.	
Retired	U14-H03A4	(1987-2008)	Interconnections between several chips on substrate*	U14-H03D to U14-H03H	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. Includes use of e.g. wire bonding between chips on same substrate (which may also include semiconductor, e.g. silicon). Covers Advanced VLSI packaging, high density interconnect. Also includes optical contactless connection for communication between chips (see also U11-D03C3).	AVP, HDI, high density multi-chip interconnect, HDMI
Retired	U14-H03A4A	(1992-2008)	Thick film modules using e.g. ceramic dielectric*	U14-H03D to U14-H03H	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. See also relevant codes in U11 class, e.g. U11-D03B9, U11-D03C3 and/or other relevant codes in U14 class, e.g. U14-H03A1, U14-H02, U14-H03B, U14-H04A3.	
Retired	U14-H03A4B	(1992-2008)	Thin film modules using e.g. polymer dielectric*	U14-H03D to U14-H03H	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. See also relevant codes in U11 class e.g. U11-C05A, U11-C05D2, U11-C05D3, U11-D03B9, U11-D03C3 and/or relevant codes in U14 class, e.g. U14-H01D, U14-H01F, U14-H03A1.	Polyimide thermoset, KAPTON

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Retired	U14-H03B	(1987-2008)	Multilayer ceramic wiring boards*	V04-R05A1	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. For chip carriers see also U11-D01A, for unencapsulated IC mountings see also U14-H03A1. For high density multilayer interconnect see U14-H03A4.	
Retired	U14-H03B1	(1987-2008)	Details of materials/structures for multilayer ceramic substrates*	U14-H03D to U14-H03H	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes.	
Retired	U14-H03B2	(1987-2008)	Other details associated with chip mounted on multilayer ceramic substrate*	U14-H03D to U14-H03H	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. Includes e.g. recess to facilitate enclosure of chip, terminals, capacitors included in the multilayer board (see also U11-D03C1) etc.	
Retired	U14-H03C	(1987-2008)	Hybrid circuits (general)*	U14-H03G	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03G. Includes substrates not covered elsewhere in U14-H03. See also U11-A05B for material aspects, and U11-D01A for chip carrier.	Aluminium nitride, silicon carbide
Retired	U14-H03C1	(1987-2008)	Alignment of chips in array*	U14-H03D to U14-H03H	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. E.g. for line image sensor, facsimile, photoelectric reader.	Facsimile, reader, photoelectric
Retired	U14-H03C2	(1987-2008)	Analogue circuitry - transistor and transmission line details*	U14-H03D to U14-H03H	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. See W02-A also for microstrip/stripline circuitry.	Triplate
Retired	U14-H03C2A	(1997-2008)	High frequency integrated circuits*	U14-H03C2	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see code U14-H03H for high frequency circuits. Includes monolithic microwave integrated circuits. For package aspects see U11-D01A4. For integrated circuit structures see also U13-D codes.	MMIC
Retired	U14-H03C3	(1987-2008)	Hybrid circuit packages and terminals*	U14-H03D to U14-H03H	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H03D to U14-H03H codes. For multi-chip modules see also U11-D01A6.	Lead, Pin

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Retired	U14-H04B1	(1987-2008)	Hybrid circuit packaging*	U14-H04B	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H04B which now includes all aspects of hybrid circuit assembling and manufacture. Coating with resin, sealing package.	
Retired	U14-H04B2	(1987-2008)	Applying terminals for hybrid circuits*	U14-H04B	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H04B which now includes all aspects of hybrid circuit assembling and manufacture. Includes e.g. connector for hybrid circuit (see also V04-K02 and V04-B01).	
Retired	U14-H04B3	(1987-2008)	Mounting components onto substrate. Trimming of layer components*	U14-H04B	*This code is now discontinued, but remains searchable and valid for records from 1987 to 2008. From 2009 see U14-H04B which now includes all aspects of hybrid circuit assembling and manufacture.	
Retired	U14-H04B3A	(1992-2008)	Bonding, mounting components on hybrid circuit substrate*	U14-H04B	*This code is now discontinued, but remains searchable and valid for records from 1992 to 2008. From 2009 see U14-H04B which now includes all aspects of hybrid circuit assembling and manufacture.	
Retired	U14-H04B3B	(1992-2008)	Trimming of thin/thick film components*	U14-H04A4	*This code is now discontinued, but remains searchable and valid for records from 1992 to 2008. From 2009 see U14-H04A4.	
Retired	U14-H04B9	(1992-2008)	Other hybrid circuit assembling aspects*	U14-H04B	*This code is now discontinued, but remains searchable and valid for records from 1992 to 2008. From 2009 see U14-H04B which now includes all aspects of hybrid circuit assembling and manufacture. Includes e.g. demounting defective components in multi-chip modules (see also U11-E02B). For testing aspects see also U11-F01F.	
W05 Alarms, signalling, Telemetry and Telecontrol						
Retired	W05-C05	(1992-2008)	False alarm protection*	W05-C02C5	*This code is now discontinued and from 2009 the topic of false alarm prevention is covered by W05-C02C5 codes to place it in the same hierarchy as alarm interpretation and prediction. W05-C05 remains valid and searchable for records prior to 2009.	
X22 Automotive Electrics						
Retired	X22-K01	(2007-2008)	Multiplex control system*	X22-K03	*This code is now discontinued and combined with X22-K03 from 2009 onwards since current vehicle networking and multiplexing are essentially the same thing. It is still searchable and valid for records from 2007 to 2009. See W05-D02 also for multiple access and multiplexing control signals transmission, and T01-J07D1B for multiplex control system using microprocessor technology. Used to highlight multiplex control of distributed (electrical) loads via single electric cable/bus and fibre-optic systems.	