

CODE	TITLE	IPC	SCOPE NOTES	SEARCH TERMS	PREVIOUS CODE
U11-A15A	Inorganic electroluminescent materials				
U11-A15B	Organic electroluminescent materials		Includes polymeric and organometallic complexes.		
U11-B02C	Spherical crystal growth methods.		Includes e.g. droplet method. For spherical lcs see U13-D06.		
U11-B05	Apparatus details for crystal growth				
U11-B05A	Crucibles, crystal holders				
U11-B05B	Crystal pulling mechanisms				
U11-B05C	Heating arrangements for growth vessel, crucible				
U11-C04C4	Reticle and stage drive mechanisms		This code is used in conjunction with other U11-C04 (-E1,-F1,-G1,-H1) codes, depending on type of exposure source used.	Step-and-repeat, wafer stepper scan.	
U11-C06A1A1	Endpoint detection for chemical mechanical polishing				
U11-C09B1	Gas delivery head details for chemical vapour deposition			Showerhead, gas flow	
U11-C09E	Sintering/curing furnaces		Details of furnaces used for ceramic sintering, photoresist/other layer baking/drying, or encapsulant curing.		

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U11-G01	Integrated circuit design using CAD				
U11-G02	Automated component/interconnect layout design		Includes software packages. For software simulation see T01 J15 and U11-C15C codes.	VHDL	
U11-G03	Circuit simulation and/or fault finding techniques		Includes software simulations.		
U11-G09	Other IC design aspects		This section deals with individual semiconductor devices for use either as discrete device per se, or as an element of an integrated circuit. U12 codes are also used for inventions involving manufacture (together with U11 codes) to define as far as possible the nature of the device being manufactured. From 9201 U12-Q code has been introduced to indicate devices used in integrated circuit embodiments.		
U12-B03F1	Microstructures	(B81)			
U12-B03F1A	Microstructural devices	(B81-001/005)			
U12-B03F1B	Microstructural systems	(B81-001/007)			
U12-B03F2	Nanostructures	(B82)			
U12-B03F2A	Nanostructural devices	(B82)			
U12-B03F2B	Nanostructural systems	(B82)			
U12-C03A(0)	Resistors		Includes PN junction structure aspects.		

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U12-C03B(0)	Inductors		Includes structure of inductive aspects of monolithic microwave intergrated circuits (MMIC) (see also U14-H03C2 codes). For telecommunications aspects see W01 codes.		
U12-C04(0)	Fuses		For all structural aspects of fuses/antifuses including memory redundancy circuits (see also U14-D01A). Before Jan 2002 see U11-D03B2A for structural aspects. For fuse manufacture see U11-C05G2A.		
U13-A01G	Wavelength conversion layers for IC radiation sensors		Includes phoshors coated onto photodiode-based MOS imagers which fluoresce under X-ray radiation (see S05 codes for medical applications).		
U13-D06	Spherical integrated circuit structures		Includes spherical sensor circuits for in-situ monitoring of body functions (see also S05 codes for medical applications).		
U13-E04	Clocking and synchronization circuitry for integrated circuits		Includes on chip real-time clocks.		previous codes (U13-E09)
U14-B02	With elements simulating neuronal cells		For complex neuronal configurations see T01-E05B and/or T02-A04A5.		
U14-J02D	Inorganic/organic electroluminescent displays				

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U14-J02D1	Inorganic electroluminescent displays				
U14-J02D2	Organic or polymeric electroluminescent displays		Includes structures with polymeric and organometallic complexes.		
U21-A03J5	Absolute position encoder	(H03M-001)	This code is assigned with other U21-A03J codes as appropriate, depending on technology, and refers to encoders with a unique relation between position and output code. Such types were indicated by the additional assignment prior to 20021, of W05-D01 codes, which are now discontinued.	Gray code, disc, scale, track.	
U22-D10F	Using comparator	(H03K-005/00-26)			
U23-D01A3A	Phase detector	(H03L-007/085-097)			
U23-D01A3C	Charge pump	(H03L-007/085)	Charge pumps in general are covered by U24-D02A.		
U23-J01E	Integrated or film circuit implementation	(H03D-007)	This code is assigned with other U23-J01 codes as necessary, to indicate a self-contained mixer in integrated form. Specific novel constructional and manufacturing aspects of monolithic and film circuits are also assigned codes from classes U11-U14 as appropriate.		
U24-D04G	Synchronous rectifier		Includes rectifiers using active transistor switches.		previous code (U24-D04C)
U24-F06	Electrostatic protection				

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U24-F07	Thermal protection				
U24-G02A1A	Differential input	(H03F-003/45)			
U24-G02A1B	Differential output	(H03F-003/45)			
U24-G02A1C	Differential input and output	(H03F-003/45)	This code takes precedence over U24-G02A1A and U24-G02A1B.		
U24-G03D1A	Noise arising from amplifier components	(H03F-001/26-28)			
U24-G03D1B	Reducing effect of external noise sources	(H03F)			
U24-G03D3	Improvement in dynamic range	(H03F)			
U24-G03D5A	Harmonic distortion	(H03F-001/32)			
U24-G03D5C	Intermodulation distortion	(H03F-001/32)			
U24-G03D5X	Other distortion	(H03F-001/32)			