



Gaining Proficiency in Component Sourcing and Selection to Ensure Parts Availability



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Session Outline



During this session:

attendees will be given guidance and instruction intended to aid their organization in making wise product design, sourcing, compliance and obsolescence management decisions in less time:

thus increasing the probability of procuring authentic parts.

2012 National Defense Authorization Act



One Hundred Twelfth Congress
of the
United States of America

AT THE FIRST SESSION

*Begun and held at the City of Washington on Wednesday,
the fifth day of January, two thousand and eleven*

An Act

To authorize appropriations for fiscal year 2012 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes.

*Be it enacted by the Senate and House of Representatives of
the United States of America in Congress assembled,*

SECTION 1. SHORT TITLE.

This Act may be cited as the "National Defense Authorization Act for Fiscal Year 2012".

Section 818: Detection and Avoidance of Counterfeit Electronic Parts

- *Requires...processes to abolish counterfeit parts*
- *Requires...the use of trusted suppliers*
- *Requires...the design, operation, and maintenance of systems to detect and avoid counterfeit electronic parts*
- *Requires...standards and processes for identifying such trusted suppliers comply with established industry standards*

Industry Standards



SAE AS5553

SAE Aerospace An SAE International Group	AEROSPACE STANDARD	SAE AS5553
		Issued 2009-04
Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition		

RATIONALE

This standard was created in response to a significant and increasing volume of counterfeit electronic parts entering the aerospace supply chain, posing significant performance, reliability, and safety risks.

This standard was created to provide uniform requirements, practices and methods to mitigate the risks of receiving and installing counterfeit electronic parts.

FOREWORD

To assure customer satisfaction, aerospace industry organizations must produce, and continually improve, safe, reliable products that meet or exceed customer and regulatory authority requirements. The globalization of the aerospace industry and the resulting diversity of regional/national requirements and expectations has complicated this objective. End-product organizations face the challenge of assuring the quality and integration of product purchased from suppliers throughout the world and at all levels within the supply chain. Aerospace suppliers and processors face the challenge of delivering product to multiple customers having varying quality expectations and requirements.

This document standardizes requirements, practices, and methods related to: parts management, supplier management, procurement, inspection, test/evaluation, and response strategies when suspect or confirmed counterfeit parts are discovered.

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SAE AS5553

- Obsolescence can increase the risk of acquiring counterfeit electronic parts. To reduce the likelihood of purchasing counterfeit parts, electronic equipment manufacturers should proactively manage the life cycle of their products through the use of a Diminishing Manufacturing Sources and Material Shortages (DMSMS) management plan.

- The processes shall maximize availability of authentic, originally designed and/or qualified parts throughout the product's life cycle, including management of parts obsolescence.

Meet Regulatory and Industry Specified Compliance



IHS can help by providing the required tools and content:

- Effective component selection is critical to mitigating costs and risks associated with counterfeit and obsolete components.
- This session will show how organizations can take a proactive approach to component selection by systematically reviewing multiple manufacturer sources for the absolute best possible component selection for your designs.

IHS Electronic Components Database - CAPS Universe



The Electronics Database contains component information on over 300 million electronic components, from more than 1,500 manufacturers representing over 450 part categories

- *Batteries*
- *Connectors*
- *Crystals / Oscillators*
- *Cylindricals*
- *Electro-Mechanical Components*
- *Fans & Blowers*
- *Fasteners & Hardware*
- *Fiber Optic Connectors*
- *Fiber Optic Devices*
- *Fuses & Circuit Protection*
- *Heat Sinks*
- *Sensors*
- *Passive Devices*
- *Power Supplies*
- *Relays*
- *RF Microwave Devices*
- *Semiconductors*
- *Transformers*

Search millions of semiconductors, passive devices, electro-mechanical and other parts



4DONLINE Parts Universe User: IHS User Home | [Advanced Search](#) | [Results](#) | [Preferences](#) | [IHS Menu](#) | [Log Out](#) | [Help](#)

Category: General Fixed Inductor

Results: **Advanced** Documents Details Environmental Compare Transfers Mfr Info Alerts Life Cycle Export

Clr	Rel. Info	Part Number	Mfr Name	PS	Part Description	Manufacturer Part Description
<input type="checkbox"/>		0603-15NGG	API Delevan	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	OPEN CONSTRUCTION WIREWOUND S
<input checked="" type="checkbox"/>		CT0805CS-150G	Central Tec	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	OPEN - WIRE-WOUND CHIP INDUCTOR
<input type="checkbox"/>		LLQ2012-E15NG	Toko	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	WIREWOUND CHIP INDUCTOR
<input type="checkbox"/>		0805-15NG	API Delevan	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	OPEN CONSTRUCTION WIREWOUND S
<input type="checkbox"/>		LLQ1608-A15NG	Toko	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	WIREWOUND CHIP INDUCTOR
<input type="checkbox"/>		CI0603-15N-GBQ	RCD	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	CERAMIC CORE WIREWOUND CHIP IN
<input type="checkbox"/>		CI0603-15N-GTQ	RCD	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	CERAMIC CORE WIREWOUND CHIP IN
<input type="checkbox"/>		IMC0603RK15NG01	Dale	A	1 ELEMENT, 0.015 uH, GENERAL PURPOSE INDUCTOR, SMD	WIRE WOUND SURFACE MOUNT INDUC
<input type="checkbox"/>		CI0603-R015-GBQ	RCD	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	CERAMIC CORE WIREWOUND CHIP IN
<input type="checkbox"/>		CI0603-R015-GTQ	RCD	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	CERAMIC CORE WIREWOUND CHIP IN
<input type="checkbox"/>		CT0603CS-15NG	Central Tec	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	OPEN WIRE-WOUND CHIP INDUCTOR

11 items All Electrical Environmental General Life Cycle Mechanical | [Export](#) [Compare](#) [Search](#)

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View technical specifications, datasheets, and environmental compliance documents



IHS 4DONLINE Parts Universe Results

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Results: Advanced Documents Details **Environmental** Compare Transfers Mfr Info Alerts Life Cycle Distributors Export

Part Number: CT0805CSF-150G Mfr Name: Central Tec PS: A Print Preview

RoHS Attributes	
RoHS Compliant	NO
Document(s)	YES
RoHS Exemption(s)	
China RoHS Compliant	
Environmentally Friendly Use Period	
RoHS Compliance Identifier	PART NUMBER
RoHS Compliant Number	CT0805CSF-150G
Additional Feature	

Reach Attributes	
SVHC Presence	NO
SVHC List	SVHC-73(19-DEC-2011)
Source	REACH COFC
CAS Accounted for Weight (%)	0
PDSL Presence	
PDSL List	

EU Material Attributes	
Lead (ppm)	
Lead (mg)	
Cadmium (ppm)	
Cadmium (mg)	
Chromium VI (ppm)	
Chromium VI (mg)	
Mercury (ppm)	
Mercury (mg)	
PBB (ppm)	
PBB (mg)	
PBDE (ppm)	
PBDE (mg)	
Item Weight (mg)	

China Material Attributes	
Pb: <= 1000 ppm	
Cd: <= 100 ppm	
Cr VI: <= 1000 ppm	
Hg: <= 1000 ppm	
PBB: <= 1000 ppm	
PBDE: <= 1000 ppm	

Lead-Free Attributes	
Lead Free	NO
Terminal Finish	NOT SPECIFIED
JESD-609 Code	

No.	Substance of very high concern	CAS number	EC number	Reason for Inclusion
1	Anthracene	120-12-7	204-371-1	PBT (article 57d)
2	4,4'- Diaminodiphenylmethane	101-77-9	202-974-4	Carcinogenic (article 57a)
3	Dibutyltin dilaurate (DBDL)	84-74-3	201-557-1	Toxic Substances (article 57c)

Done Done Internet 100%

Identify equivalent parts, upgrades, downgrades, and RoHS-compliant substitutes



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Results: Alternates | Documents | Details | Environmental | **Compare** | Transfers | Mfr Info | Alerts | Life Cycle | Export

Category: General Fixed Inductor Print Preview

	<input type="radio"/> Select <input checked="" type="checkbox"/> Remove	<input checked="" type="radio"/> Selected	<input type="radio"/> Select <input checked="" type="checkbox"/> Remove	<input type="radio"/> Select <input checked="" type="checkbox"/> Remove
Part Number	CT0805CSF-150G	CT0805CS-150G	0805R-15NH	LLQ2012-F15NG
Mfr Name	Central Tec	Central Tec	API Delevan	Toko
PS	A	A	A	A
Part Description	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD
Manufacturer Part Description	OPEN-WIRE-WOUND CHIP INDUCTOR	OPEN - WIRE-WOUND CHIP INDUCTOR	OPEN CONSTRUCTION WIREWOUND SURFACE MOUNT INDUCTOR	WIRE WOUND CHIP INDUCTOR
Manufacturer Package Description	CHIP, 0805, ROHS COMPLIANT	CHIP, 0805		CHIP, 0805, ROHS COMPLIANT
CAGE Code			99800	SJ923
RoHS Compliant	YES	NO	YES	YES
RoHS Exemption(s)				
SVHC Presence	NO	NO	NO	
PDSL Presence				
China RoHS Compliant				
Lead Free	YES	NO	YES	YES
HTS Code				
SB Code				
ECCN				
ECCN Governance				
Manufacturer Series	CT0805CSF	CT0805CS	0805	LLQ2012
Manufacturer Part Description	GENERAL PURPOSE INDUCTOR	GENERAL PURPOSE INDUCTOR	GENERAL PURPOSE INDUCTOR	GENERAL PURPOSE INDUCTOR

Done | Internet | 100%

Analyze lifecycle stage, availability, predicted or actual EOL, and part LTB information



The screenshot shows a web browser window displaying a notice from IHS 4DONLINE Parts Universe. The page title is "1819417230: V2) PRODUCT DISCONTINUANCE NOTIFICATION (2011/09/06)". The main heading is "SUBJECT: Notice of Discontinuation of Wire-Wound Chip Inductor (LQH6PP series & LQH88P series)". The notice is addressed to a "Dear Valued Customer" and expresses gratitude for their patronage. It states that the "LQH6PP series & LQH88P series" wire-wound chip inductors will be discontinued. The notice is organized into four sections: 1. Applicable Products (Wire-Wound Chip Inductor), 2. Schedule (Last Order by end of June 2012, End of Production by end of September 2012), 3. Reason for discontinuation (unexpected decline in market prices), and 4. Substitution. The interface includes a sidebar with navigation options like "Results", "Part No", "Mfr Nam", "Life Cyc", "Availability", "Estimate", "LTB Dat", "LTD Dat", "Alert/Pr", "Life Cyc", and "Comme". The bottom of the window shows a Windows taskbar with "Done", "Internet", and "100%" zoom level.

4DONLINE
Parts Universe

1819417230: V2) PRODUCT DISCONTINUANCE NOTIFICATION (2011/09/06) Close Window

SUBJECT: Notice of Discontinuation of Wire-Wound Chip Inductor
(LQH6PP series & LQH88P series)

Dear Valued Customer,

Thank you very much for your patronage on our products.
We have regrettably decided to say that our Wire-Wound Chip Inductor "LQH6PP series & LQH88P series" will be discontinued as per the following schedule.

1. Applicable Products
Wire-Wound Chip Inductor (LQH6PP series, LQH88P series)

Please refer to attached sheet "Appendix 1" for details.

- We have indicated the affected Part No's in Appendix 1, which have been ordered or have been registered in our system within the last two years.
- The current registration will be invalid after Discontinuation.

2. Schedule
Last Order: by the end of June, 2012
End of Production: by the end of September, 2012

3. Reason for discontinuation
These two series were launched in 2009. Since then, an unexpected decline in market prices has deteriorated our business circumstances.

4. Substitution

Access PCN/EOL alerts and counterfeit reports



Results: Advanced Documents Details Environmental Compare Transfers Mfr Info Alerts Life Cycle Export

Category: General Fixed Inductor Edit Search 11 items

Clr	Rel. Info	Part Number	Mfr Name	PS	Part Description	Manufacturer Part Description
<input type="checkbox"/>		0603-15NGG	API Delevan	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	OPEN CONSTRUCTION WIREWOUND S
<input checked="" type="checkbox"/>		CT0805CS-150G	Central Tec	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	OPEN - WIRE-WOUND CHIP INDUCTOR
<input type="checkbox"/>		LLQ2012-E15NG	Toko	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	WIREWOUND CHIP INDUCTOR
<input type="checkbox"/>		0805-15NG	API Delevan	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	OPEN CONSTRUCTION WIREWOUND S
<input type="checkbox"/>		LLQ1608-A15NG	Toko	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	WIREWOUND CHIP INDUCTOR
<input type="checkbox"/>		CI0603-15N-GBQ	RCD	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	CERAMIC CORE WIREWOUND CHIP IN
<input type="checkbox"/>		CI0603-15N-GTQ	RCD	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	CERAMIC CORE WIREWOUND CHIP IN
<input type="checkbox"/>		IMC0603RK15NG01	Dale	A	1 ELEMENT, 0.015 uH, GENERAL PURPOSE INDUCTOR, SMD	WIRE WOUND SURFACE MOUNT INDUC
<input type="checkbox"/>		CI0603-R015-GBQ	RCD	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	CERAMIC CORE WIREWOUND CHIP IN
<input type="checkbox"/>		CI0603-R015-GTQ	RCD	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	CERAMIC CORE WIREWOUND CHIP IN
<input type="checkbox"/>		CT0603CS-15NG	Central Tec	A	1 ELEMENT, 0.015 uH, CERAMIC-CORE, GENERAL PURPOSE INDUCTOR, SMD	OPEN WIRE-WOUND CHIP INDUCTOR

11 items All Electrical Environmental General Life Cycle Mechanical Export Compare Search

Results History Save Search Recall Search... ERA I

Evaluate price, availability, and sources for parts and substitute parts



4DONLINE Parts Universe

Part Number: CT0805CS-150G Mfr Name: Central Tec PS:

Manufacturer		Manufacturer	
Manufacturer Name	CENTRAL TECHNOLOGIES	Manufacturer Category	Power Sup
Manufacturer Web Site	http://www.ctparts.com/	Manufacturer	Ceramic C
Short Mfr Name	Central Tec	Manufacturer	Tantalum
Business Status	SUPPLIER	Manufacturer	Signal Dic
Content Coverage		Manufacturer	Voltage Re
Address-1	ONE PARK PLAZA,	Manufacturer	Data Line

CENTRAL TECHNOLOGIES
Manufacturer of Passive Components

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Products

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Results: Advanced Documents Details Environmental Compare Transfers Mfr Info Alerts Life Cycle **Distributors** Export

Part Information : Part Number: MAX195BCWE+

Part Number	MAX195BCWE+
Manufacturer Name	MAXIM INTEGRATED PRODUCTS INC
Status	ACTIVE
Part Description	1-CH 16-BIT SUCCESSIVE APPROXIMATION ADC, SERIAL ACCESS, PDS016
Industry Avg Price (\$)	70.06

Distributor Data: Part Number: MAX195BCWE+ Print Preview

Source	Quantity in Stock	Lead Time (Weeks)	Price	Currency	Quantity-Min	Quantity-Max	Quantity-Multiples	Packaging	Packag
AVNET	2226	9	84.09	USD	9		1		
Digi-Key	529	9	56.04	USD				TUBE	

2 items Search

ERA I

Retrieve RoHS, REACH, and other compliance information and documentation



1572900047: E5 120-12-7 REACH DECLARATION(2012/01/09)

Part Num	Part Desc	UNSC	UNSC	REACH Declaration
24	2,4-Dinitrotoluene	121-14-2	204-450-0	Carcinogenic (article 57a)
25	Diisobutyl phthalate	84-69-5	201-553-2	Toxic for reproduction (article 57c)
26	Lead chromate	7758-97-6	231-846-0	Carcinogenic and toxic for reproduction (articles 57a and 57c)
27	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	235-759-9	Carcinogenic and toxic for reproduction (articles 57a and 57c)
28	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	215-693-7	Carcinogenic and toxic for reproduction (articles 57a and 57c)
29	Tris(2-chloroethyl)phosphate	115-96-8	204-118-5	Toxic for reproduction (article 57c)
30	Acrylamide	79-06-1	210-173-7	Carcinogenic and mutagenic (articles 57a and 57b)
31	Trichloroethylene	79-01-6	201-167-4	Carcinogenic (article 57a)
32	Boric acid	10043-35-3 11113-50-1	233-139-2 234-343-4	Toxic for reproduction (article 57c)
33	Disodium tetraborate, anhydrous	1303-96-4 1300-43-4 12179-04-3	215-540-4	Toxic for reproduction (article 57c)
34	Tetraboron disodium heptaoxide, hydrate	12267-73-1	235-541-3	Toxic for reproduction (article 57c)
35	Sodium chromate	7775-11-3	231-889-5	Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c)
36	Potassium chromate	7789-00-6	232-140-5	Carcinogenic and mutagenic (articles 57a and 57b)
37	Ammonium dichromate	7789-00-6	232-143-1	Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c)
38	Potassium dichromate	7778-50-9	231-906-6	Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c)
39	Cobalt(II) sulphate	10124-43-3	233-334-2	Carcinogenic and toxic for reproduction (articles 57a and 57c)
40	Cobalt(II) dinitrate	10141-05-6	233-402-1	Carcinogenic and toxic for reproduction (articles 57a and 57c)
41	Cobalt(II) carbonate	513-79-1	208-169-4	Carcinogenic and toxic for reproduction (articles 57a and 57c)
42	Cobalt(II) diacetate	71-48-7	200-755-8	Carcinogenic and toxic for reproduction (articles 57a and 57c)
43	2-Methoxyethanol	109-86-4	203-713-7	Toxic for reproduction (article 57c)
44	2-Ethoxyethanol	110-80-5	203-804-1	Toxic for reproduction (article 57c)
45	Chromium trioxide	1333-82-0	215-607-8	Carcinogenic and mutagenic (articles 57a and 57b)

NEXT Steps



1. *Gain access to a parts research tool that effortlessly exposes multiple manufacturer FFF component sources to chose from.*
2. *Gain access to a parts research tool to maximum your decision support. Allowing access to a rich set of technical parametric data, Life Cycle prediction, FFF alternates search/compare, datasheets, environmental documents, PCNs, EOLs, GIDEP and ERAI counterfeit alerts.*
3. *Gain access to a parts research tool that supports sourcing from trusted manufacturers and franchised distribution sources.*

