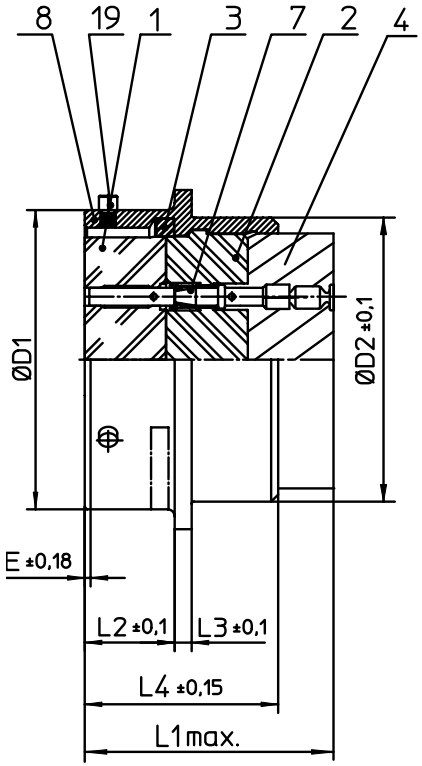
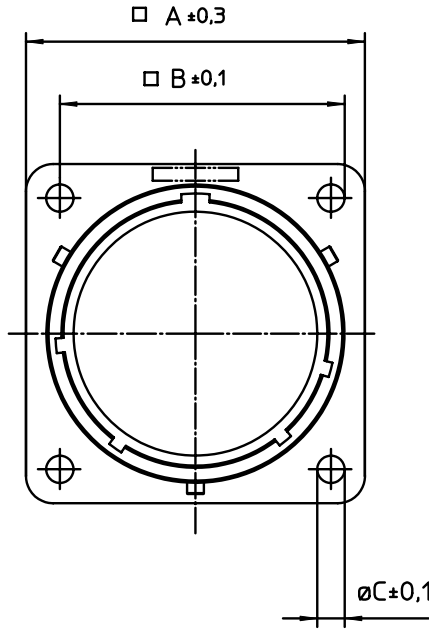
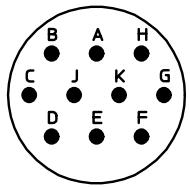




NO.	MASSE / DIMENSIO
A	26.15
B	20.6
C	3.2
D1	19.05
D2	17.3
E	0.46
K	3.89
L1	34
L2	11.6
L3	1.9
L4	21.1

NO.	BESCHREIBUNG / DESCRIPTION
1	ISOLIERKÖRPER BUCHSE / INSULATOR SOCKET
2	ISOLIERKÖRPER MITTE / WAVER
3	DICHTRING / GASKET
4	DICHTKÖRPER / GROMMET
7	KONTAKT BUCHSE / CONTACT SOCKET
8	GEHÄUSE / RECEPTACLE
19	BAYONETTSTIFT / BAYONET PIN



Note: Due to an automatic nomenclature system, numbers generated may not be sequential.

Notiz: Durch ein automatisches Benennungssystem können Nummerierungen entstehen, die nicht fortlaufend sind.

Material Specification:	
Shell Material:	Aluminium alloy
Shell Plating:	Olive drab chromate over cadmium plating
Insulator Material:	Polychloroprene
Contact Material:	Copper alloy, gold plated
Contact Plating:	Copper alloy, gold plated

all dimensions are in mm

Dimensions without tolerance indications are general tolerances in acc. with DIN7168m

drawing for CUSTOMER

Cannon

ITT Industries
ITTCANNON Gmb H
D - 71384 Weinstadt/Germany

description MS3122E1210S

Box mounting receptacle

Crimp Contacts (enclosed - not installed) / Socket / Layout: 1210

page 1/1

revision 42.7

ITT Part Number Search

Enter Part Number: Go

PART NUMBER:MS3122E1210S

Shell Style	Box mounting receptacle
Gender	Socket
Shell Size	12
Contact Arrangement	1210
Number of contacts	10 contacts size 20
Contact Type	Crimp Contacts (enclosed - not installed)
Contact Plating	Copper alloy, gold plated
Shell Material	Aluminium alloy
Shell Plating	Olive drab chromate over cadmium plating
Insulator and Gromet Material	Polychloroprene
Contact Material	Copper alloy, gold plated
Water Tightness	Acc. To VG95319 Part 2, Test No. 5.9.2
Operating Temperature	-55°/+125°C (-67/257°F)
Mating Cycles	500 min
Vibration	200 m/s² at 10 to 2000 Hz
Contact Rating AWG20	7,5 A
Insulator Resistance	≈5000 MOhm
Test Voltage	1500 Vrms
Operating Voltage	In case of voltages greater than 50V the connector must be used in accordance with DIN VDE part 410, IEC 60364-4-41.
Safety Provisions	IP67 acc. to DIN 40 050 (0,2 bar pressure over 48 hrs)
General Info	*All tests in accordance with VG95319 and/or if applicable with VG95210*

Harnessing Info: Contact Cross-Section	See assembly instruction
Harnessing Info: Insulator Diameter	See assembly instruction
RoHS Compliance	RoHS Roadmap

To: **RoHS ITT Industries Cannon, Connector Customers**
From: Cannon Connector Product Management & Engineering Management
Subject: RoHS Directive Compliance & Roadmap
Date: September 2, 2004

Dear Cannon Connector Customer,

In order to meet the requirements of the RoHS directive on hazardous substances, ITT Industries, Cannon have set out a plan to ensure compliance by the middle of 2005. Please find enclosed with this letter a summary of the plan, the main points of which are listed below.

1. RoHS Description & Roadmap: a complete overview of Cannon Connectors initiative towards achieving RoHS compliance by second to third quarter 2005.

2. Reflow Solder Process Profile: an overview of the lead-free solder profile specified by Cannon Connectors as compliant with RoHS directive.

3. RoHS connector List: a complete listing, by Connector series, of all Cannon Connectors products and their current state of compliance with the RoHS directive.

We believe that this information will answer your immediate requests concerning specific RoHS compliance issues regarding Cannon Connector products. A more comprehensive and frequently updated listing is available on our ITT Industries website at the following address: www.ittcannon.com.

If you have any additional questions, please contact your Customer Service Agent, Manufacturer's Representative, or Product Marketing Manager.

Best Regards,

Roadmap for RoHS Complying Product
CMD/ATI Division Basingstoke

RATIONALE

The following described "Road Map" for elimination of hazardous substances is based on the "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL." issued on January 27th 2003. This directive addresses the restriction on the use of certain hazardous substances in electrical and electronic equipment, generally known as Restriction on Hazardous Substances (RoHS). This directive will be effective as of July 1st 2006.

The following is an extract from Article 4, Paragraph 1:

> *"The member states shall ensure that after 01 July 2006, newly marketed items of electrical and electronic equipment shall not contain any lead, mercury, cadmium, hexavalent chromium, polybromide biphenyl (PBB) or polybromide diphenyl ether (PBDE)."*

BACKGROUND, STATUS

These identified materials are prohibited because they demonstrably cause damage to people and to the environment. The electronics industry is particularly affected by the ban on lead.

Various investigations have been carried out by different institutions, working parties, etc., which have developed alternative material processes to ensure the "lead-free" manufacture of electrical / electronic equipment after July 1st 2006. However, the situation today is that not all materials and processes are available to address this directive.

Some Japanese manufacturers of home electronics have implemented the lead- free concept in "Green Products." In Contrast, few actions have been implemented in Europe and the USA. Several large companies are beginning to question their suppliers and pilot specific projects to gain initial experience with their RoHS compliance.

ITT CANNON RoHS ROADMAP

Today, some of our connector products contain at least one of the six listed "hazardous" materials: lead, hexavalent chromium, mercury, cadmium, PBB and PBDE.

Details of today's status can be found in the attachment, see Appendix 1. These hazardous materials will be eliminated by mid 2005. Additionally, work on detailed schedules by product family is in process. Supporting this work, specific functional and reliability tests have been completed or are in progress.

Roadmap for RoHS Complying Product
CMD/ATI Division Basingstoke

All ITT Cannon Connector product lines will be affected by this Roadmap. A detailed file with all Connector product families is available upon request, see Appendix 1.

Military product lines according to MIL and/or VG specifications (e.g. MIL-S-83731, MS5015/26482, VG 95234/95238, DIN72585) will remain unchanged until the standards organizations and our military customers agree to the required changes towards hazardous free materials.

LEAD FREE TERMINATION OPTIONS

ITT Cannon Connectors has decided to offer matt pure tin over nickel (or other base materials) as the standard finish to replace contact terminations containing lead. ITT Cannon Connectors selected matt pure tin due to its reduced whisker risk compared to bright pure tin.

IDENTIFICATION OF RoHS COMPLYING PRODUCTS:

Those ITT Cannon connectors complying with RoHS will be packaged with printed package labels containing description, ITT and date code. Next to the date code the letters “GP” will be added, to identify the product as “Green Product.” Example for week 14 2004: ITT 14/04 GP

ORDER REFERENCES – Transition Period

Descriptions and article numbers will remain unchanged.
We are using the existing inventory based on the First in First out principle. Cannon internal traceability is guaranteed based on work orders and manufacturing date.
Each initial delivery in compliance with RoHS will be marked with a label.
Mixed deliveries will be avoided.

TRANSITION SCHEDULE

First samples with the new plating metallurgy will be available DURING THE FIRST QUARTER 2005. These samples will be marked by ~~PB~~ (no lead).
Please, contact your product marketing specialist for details.
Delivery start of products complying with all RoHS requirements is expected by end of year 2005.

SUMMARY

- All commercial connector families will be supplied with lead free alternative finishes by July1st 2005. Additionally, all others hazardous materials (as indicated by the RoHS directive) will be eliminated by that date.
- Products not requiring a high temperature soldering process will not necessarily have the insulator material changed.
- ITT Cannon Connectors which are in accordance with VG and MIL specifications are updated to the RoHS directive by military requirements.
- All new products developed from September 2004 will comply with this directive

YOUR CONTACTS / FUTHER INFORMATION

Please contact your Customer Service Agent, Manufacture'sRepresentative, or Product Marketing Manager for additional details. This document and more comprehensive information may be found on our web page: www.ittcannon.com.

APPENDIX 1
Page 1

	contact surface	shell surface	surface passivation				
Hazardous Substances	**Lead**	**Cadmium**	**Hexavalent Chromium**	Mercury	Poly Bromide Biphenyl	Poly Bromide Diphenyl Ethers	Compatible with lead free soldering
CMD Product Families	Free ?	Free ?	Free ?	Free ?	Free ?	Free ?	
Backplane							
CBC20	No	Yes	Yes	Yes	Yes	Yes	in progress
Tempus High Speed 1000 Series	No	Yes	Yes	Yes	Yes	Yes	in progress
Tempus High Speed 2000 Series	No	Yes	Yes	Yes	Yes	Yes	in progress
Tempus High Speed 4000 Series	No	Yes	Yes	Yes	Yes	Yes	in progress
RF							
SMZ Plugs	No	Yes	Yes	Yes	Yes	Yes	in progress
SMZ Sockets	No	Yes	Yes	Yes	Yes	Yes	in progress
SMZ U Links	No	Yes	Yes	Yes	Yes	Yes	in progress
1.0/2.3 Plugs	No	Yes	Yes	Yes	Yes	Yes	in progress
1.0/2.3 Sockets	No	Yes	Yes	Yes	Yes	Yes	in progress
CoSMID	No	Yes	Yes	Yes	Yes	Yes	in progress
SMA, SMB, SMC, SSMB, SSMC	No	Yes	Yes	Yes	Yes	Yes	in progress
Fakra	No	Yes	Yes	Yes	Yes	Yes	in progress
BNC	No	Yes	Yes	Yes	Yes	Yes	in progress
1.6/5.6	No	Yes	Yes	Yes	Yes	Yes	in progress
N Types / TNC + other RF	No	Yes	Yes	Yes	Yes	Yes	in progress
Mobile							
Mini Test Port	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LPC Mk 5	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LPC Mk 6	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Universal Contact	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Board to Board	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Keypad Connecrtor	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Modulus	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Panther	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LCD	Yes	Yes	Yes	Yes	Yes	Yes	in progress
D-Sub							
Original D	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Combo D	No	No	No	Yes	Yes	Yes	Yes
Filter D	No	Yes	Yes	Yes	Yes	Yes	No
Speedy D	Yes	Yes	Yes	Yes	Yes	Yes	Yes
D*W	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ZD	Yes	Yes	Yes	Yes	Yes	Yes	Yes
D*MA @ High Rel	No	No	No	Yes	Yes	Yes	Yes
MDSM	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Replacement material	Pure Tin	Zinc-Cobalt	Organic compound				

Lead free: Plan is to have all products leadfree by mid 2005 latest, replacement is matt pure tin
Lead in bulk material is below allowed 4% contents
Cadmium free:Plan is to have all products Cadmium free by mid 2005 latest, replacement is ZnCo

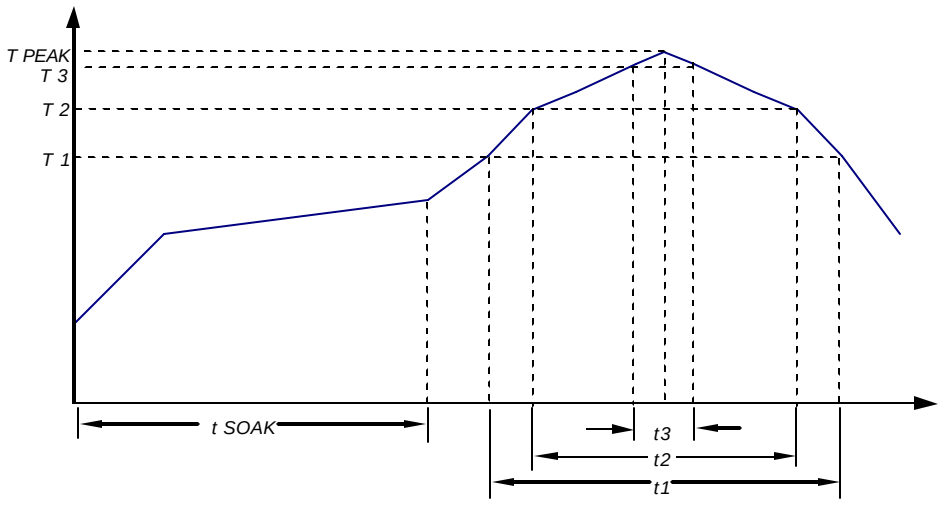
APPENDIX 1
Page 2

	contact surface	shell surface	surface passivation				
Hazardous Substances	**Lead**	**Cadmium**	**Hexavalent Chromium**	Mercury	Poly Bromide Biphenyl	Poly Bromide Diphenyl Ethers	Compatible with lead free soldering
CMD Product Families	Free ?	Free ?	Free ?	Free ?	Free ?	Free ?	
D-Sub (continued)							
D*A	No	Yes	Yes	Yes	Yes	Yes	in progress
HDD	No	No	No	Yes	Yes	Yes	in progress
DL							
DL	No	Yes	No	Yes	Yes	Yes	Yes
DLM	No	Yes	No	Yes	Yes	Yes	Yes
DLP	No	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA							
68 Way Connector	No	Yes	Yes	Yes	Yes	Yes	Yes
Compact Flash							
Host Connector	No	Yes	Yes	Yes	Yes	Yes	No
Audio							
XLR Socket	Yes	Yes	Yes	Yes	Yes	Yes	N/A
XLR Pin	Yes	Yes	No	Yes	Yes	Yes	N/A
XLR with switch	No	Yes	No	Yes	Yes	Yes	N/A
XLB-PC	No	Yes	Yes	Yes	Yes	Yes	N/A
XLM	No	Yes	Yes	Yes	Yes	Yes	N/A
XLB2	No	Yes	Yes	Yes	Yes	Yes	N/A
XLA SIA	No	Yes	Yes	Yes	Yes	Yes	N/A
XLB PIA	No	Yes	Yes	Yes	Yes	Yes	N/A
ATI Product Families							
MS & CIR	No	No	No	Yes	Yes	Yes	Yes
PT, PT-SE & Audio	No	No	No	Yes	Yes	Yes	Yes
LTT, STT,TT & VTT	No	No	No	Yes	Yes	Yes	Yes
MTT	Yes	Yes	No	Yes	Yes	Yes	Yes
RPTT-T83 & VTT-T83	No	Yes	Yes	Yes	Yes	Yes	Yes
Power-lock	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Pressure-lock	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Replacement material	Pure Tin	Zinc-Cobalt	Organic compound				

Lead free: Plan is to have all products leadfree by mid 2005 latest, replacement is matt pure tin
Lead in bulk material is below allowed 4% contents
Cadmium free:Plan is to have all products Cadmium free by mid 2005 latest, replacement is ZnCo

REFLOW SOLDER PROFILE REQ'T
FOR SOLDERING HEAT RESISTANCE TESTING

PARAMETER	REFERENCE	TIN/LEAD SPECIFICATION	LEAD FREE SPECIFICATION
PREHEAT TEMPERATURE GRADIENT		+1 -4 C/Sec	+1/-4°C/Sec
SOAK TIME	t SOAK	2 MIN. MAXIMUM	2-3 MIN.
TIME ABOVE 100°C		NOT SPECIFIED	420 SEC. MAXIMUM
TIME ABOVE 183°C		60-120 SEC.	120-180 SEC.
TIME ABOVE 217°C	t1/T1	NOT SPECIFIED	90 SEC. MAXIMUM
TIME ABOVE 230°C	t2/T2	10-40 SEC.	20-60 SEC.
TIME ABOVE 250°C	t3/T3	0	10 SEC. MAXIMUM
PEAK TEMPERATURE	T PEAK	235 -0/+5C	255 -0/+5°C
COOLINGTEMPERATURE GRADIENT		-6°C/sec. MAXIMUM	-6°C/sec. MAXIMUM



WAVE SOLDER REQ'T

FOR SOLDERING HEAT RESISTANCE TESTING

PARAMETER	REFERENCE	TIN/LEAD SPECIFICATION	LEAD FREE SPECIFICATION
PREHEAT TEMPERATURE GRADIENT		+1 -4 C/sec	+1 -4 C/sec
SOAK TIME	t1	2 MIN. MAXIMUM	2-3 MIN.
PREHEAT TEMPERATURE	T1	> 90° C	> 100° C
SOLDER POT TEMPERATURE	T2	245° - 260° C	260° - 275° C
SOLDER POT CONTACT TIME	t2	2 - 2.5 SEC.	2 - 3.5 SEC.
LEAD THERMAL TRANS. SPIKE		> 130° C	> 130° C
COMPONENT BODY TEMPERATURE		> 180° C	200° C
TIME @ MAX. BODY TEMPERATURE		> 10 sec.	> 10 sec.
PEAK BOARD BOTTOM TEMPERATURE	T PEAK	235° -0°/+5° C	255° -0° /+5° C
COOLING TEMPERATURE GRADIENT		-6C/SEC. MAXIMUM	-6C/SEC. MAXIMUM