CURTISS-WRIGHT DUBLIN TECHNICAL INFORMATION BULLETIN

June 2026

General information

The Acra KAM-500 Databook (HW/BK/0002) comprises data sheets for released Acra KAM-500 products. The latest release of the Acra KAM-500 Databook is dated 2 Jun. 2026.

A Recorders Databook (HW/BK/0039) comprising data sheets for released Recorder products is now available. The latest release of the Recorders Databook is dated 2 Jun. 2026.

The Applications Handbook (HW/BK/0005) comprises technical notes for Curtiss-Wright products. The latest release of the Applications Handbook is dated 4 Feb. 2026.

DAS Studio 3 is the setup software for data acquisition units, network switches, recorders and ground stations. The latest release of DAS Studio 3 is version 3.4.37.

AXN Databook release

The AXN Databook (BK/0046 | 2 Jun. 2026) comprising data sheets for all currently released AXN chassis and modules is now available.

The AXN Databook can be requested from Curtiss-Wright support (dub_customersupport@curtisswright.com).

The following topics are discussed in this Bulletin:

Technical information

CompactFlash and SSD memory products

Note, there is currently strong global demand for flash memory products, driven significantly by current AI market requirements. As a result, we have seen significant changes in CF and SSD pricing; in most cases the prices of these products have nearly doubled in the last few months and our suppliers are reporting there will likely be further increases.

With regards to our 128 GB CF product offering, we currently have limited quantities of DRE/CFM/010/128GB available in stock, but will be replacing this in the longer term with DRE/CFM/013/128GB.

New FAQs

N/A

New technical notes

N/A

New user guides

N/A

Training

Curtiss-Wright offers a variety of training courses, within SVS/TRN/100, which help delegates develop the skills needed to configure the various Curtiss-Wright products. Standard courses include introductory training for Acra KAM-500 airborne data acquisition hardware, and advanced training on Acra KAM-500 and Axon airborne data acquisition systems. Course content can be standard, user-definable or a combination of both. We strongly recommend training for those who are not familiar with Curtiss-Wright equipment.

Document changes

The content of the following documents has been revised since the previous release of the bulletin.

AXN products

Product - reference	Action
AXN/ADC/404/B **12 May 2026 | DST/AG/024**	Curtiss-Wright 2026 template applied; no content changed.
AXN/UBM/401/B **12 May 2026 | DST/AJ/041**	In the “Chapter 10 Packetizer format” section, updated the Chapter 10 UDP transfer header compliance standards.

Acra KAM-500 product

Product - reference	Action
KAD/BIT/101 **12 May 2026 | DST/R/015**	In the “KSM-500 fixed window functions” section, added a note to clarify limit.
KAD/MBM/102 **12 May 2026 | DST/X/054**	Deleted the text “When a timeout occurs, the response time is set to 0xFF.” from the second paragraph after Figure 4. After Figure 7, added three new figures 8/9/10 and introductory text.
KAM/TCG/105 **12 May 2026 | DST/Z/025**	Updated the recommended antenna from RFE/AEG/001 to RFE/AEG/003.
KAM/TCG/106 **12 May 2026 | DST/AG/014**	Updated the recommended antenna from RFE/AEG/001 to RFE/AEG/003.

Network and Recorder products

Product - reference	Action
NET/SWI/101/C **12 May 2026 | DST/AC/004**	In the “Active antenna inputs” table, added “Antenna noise figure.” Updated the recommended antenna from RFE/AEG/001 to RFE/AEG/003.
SSR/CHS/001/E **12 May 2026 | DST/AH/031**	Updated the recommended antenna from RFE/AEG/001 to RFE/AEG/003.

DAS Studio 3

The current release is 3.4.37. Features of the software include the following:

- Discovers, configures, manages and programs Data Acquisition Units (DAUs), recorders, switches, and third party equipment
- Functionality can be extended through external plug-in applications
- Supports the open metadata standard

GSX-500

GTS SDK 3.3

NOTE: All hardware products that are supported by GTS SDK are now discontinued. The software is maintained to support legacy hardware still in use.

The current release of GTS SDK is 3.3. Features of GTS SDK 3.3 include the following:

- Set up using a XidML 3.0 file
- Acquisition of minor PCM frame data of up to 20Mbps for each channel
- GTS SDK 3 real-time API is interrupt driven, no polling is performed
- Direct memory access data transfer relieving CPU power
- Minor frame loopback function for testing without external PCM stream
- Code samples for Borland C++, Visual Studio C++ .NET and Visual Studio C# .NET
- Driver for GTS-500 boards

For details of known GSX-500 issues, see “GTS SDK 3.3” on page 17.

Hardware status

Released products

Since the previous bulletin, the data sheets for the following products have been given a standard release. Legacy products.

N/A

Since the previous bulletin, data sheets for the following products have been moved to legacy.

N/A

Obsolete documents

Since the previous bulletin, the following documents have been made obsolete.
N/A

Appendix

Reference numbers and issue dates for hardware data sheets

The following is a list of the controlled documents and their issue dates.

To ensure that you have the most up-to-date data sheet, compare your documentation against the issue date(s). To receive updated copies of any data sheets, e-mail the required list to acra-support@curtisswright.com. If you are a member of our web site, you can view and download updated data sheets from www.curtisswrightds.com.

Product	Issue date | reference number
Axon products	
Axon handling precautions	5 Mar. 2026 | DST/AE/024
AXN/ABM/401/B	21 Nov. 2025 | DST/AJ/057
AXN/ADC/401	28 May 2025 | DST/AB/019
AXN/ADC/404/B	12 May 2026 | DST/AG/024
AXN/ADC/405	20 Apr. 2026 | DST/AE/004
AXN/ADC/406	10 Mar. 2026 | DST/AF/010
AXN/ADC/408	20 Aug. 2025 | DST/AE/003
AXN/BCU/402/C	10 Mar. 2026 | DST/AH/004
AXN/CBM/401	9 Jul. 2025 | DST/AH/024
AXN/CBM/402	9 Jul. 2025 | DST/AJ/035
AXN/CHS/03U/B	19 Nov. 2025 | DST/AJ/024
AXN/CHS/06U/B	19 Nov. 2025 | DST/AJ/025
AXN/CHS/09U/B	19 Nov. 2025 | DST/AH/010
AXN/CHS/16U/B	19 Nov. 2025 | DST/AJ/026
AXN/DSI/401/B	27 Aug. 2025 | DST/AJ/009
AXN/DSI/402/B	1 Mar. 2024 | DST/AJ/010
AXN/DTU/001	11 Jul. 2024 | DST/AH/040
AXN/EBM/401	23 Jan. 2026 | DST/AC/001
AXN/ENC/402/B	24 Dec. 2025 | DST/AK/013
AXN/EXT/401	30 Sep. 2021 | DST/AB/025
AXN/HSP/401	13 Aug. 2024 | DST/AJ/002
AXN/ICP/401/B	24 Feb. 2026 | DST/AH/017
AXN/ICP/402	9 Sep. 2025 | DST/AH/016
AXN/HSS/401	17 Feb. 2023 | DST/AG/018
AXN/ITE/01U	19 Jan. 2026 | DST/AB/023
AXN/LID/002	19 Oct. 2023 | DST/AG/025
AXN/MBM/401/B	26 Mar. 2025 | DST/AJ/042
AXN/MBM/402/B	30 Jan. 2025 | DST/AJ/043
AXN/MEM/401	24 Jul. 2025 | DST/AH/013
AXN/MEM/401/CH10	31 Dec. 2025 | DST/AJ/061
AXN/PCM/401	18 Feb. 2026 | DST/AJ/006
AXN/PPI/401	27 Mar. 2026 | DST/AJ/051
AXN/SSD/002/480GB	10 Jul. 2025 | DST/AJ/044
AXN/TCG/401/C	3 Oct. 2025 | DST/AJ/052
AXN/TCG/402/C	3 Oct. 2025 | DST/AJ/053
AXN/TDC/401	10 Mar. 2026 | DST/AE/005
AXN/UBM/401/B	12 May 2026 | DST/AJ/041
AXN/VID/401	20 Apr. 2026 | DST/AJ/034
Axon Quick Start Kit	10 Oct. 2024 | DST/AE/008
AXP/ADC/401/B	20 Apr. 2026 | DST/AM/004
AXP/CON/009	30 Mar. 2026 | DST/AK/030
CON/PSU/008[1]	15 Nov. 2019 | DST/AF/037
Unboxing Axon QSK	10 Oct. 2024 | DST/AG/002
Acra KAM-500 products	
3D drawings	3 Jun. 2025 | DST/X/034
ACC/HSK/001	9 Jun. 2016 | DST/J/064
ACC/TRF/002	31 Oct. 2023 | DST/AC/020
ACD/BAC/002/B[2]	30 Nov. 2016 | DST/W/106
ACD/BAC/003/B[1]	9 Feb. 2015 | DST/W/107
ACD/BAC/004/B[2]	9 Feb. 2015 | DST/W/108
ACD/BAC/005	9 Feb. 2015 | DST/W/017
ACD/BAC/006[2]	20 Dec. 2023 | DST/AB/003
ACD/BAC/007[2]	16 Oct. 2025 | DST/AB/004
ACD/BAC/011[2]	14 May 2025 | DST/AG/007
ACD/CJB/001	10 Oct. 2024 | DST/P/014
ACD/CJB/002	9 Jul. 2025 | DST/W/018
ACD/CJB/003[2]	20 Jun. 2025 | DST/Y/042
ACD/CJB/005[2]	20 Jun. 2025 | DST/AB/001
ACM/EXT/001/B	9 Feb. 2015 | DST/K/003
BAC/PSU/007[2]	20 Jun. 2025 | DST/W/118
Cables[2]	24 Mar. 2026 | DST/J/062
CON/KAD/002/CP[2]	14 Jul. 2025 | DST/R/008
CON/KAD/002/SR	23 Jun. 2021 | DST/R/009
CON/KAD/003/CP[2]	20 Jun. 2025| DST/S/042
CON/KAD/004[2]	19 Sep. 2024 | DST/S/040
CON/KAD/005/CP[2]	23 Jun. 2021 | DST/S/041

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Product	Issue date | reference number
CON/KAD/005/SR	23 Jun. 2021 | DST/T/095
CON/KAD/008/CP[2]	2 Feb. 2022 | DST/T/066
CON/KAD/008/SR	23 Jun. 2021 | DST/T/067
CON/KAD/012	15 Jul. 2025 | DST/AA/058
CON/KAD/020/CP[2]	13 Jun. 2025 | DST/AJ/027
CON/KAD/030/CP[2]	20 Jun. 2025 | DST/AJ/028
CON/KAD/050/CP[2]	5 Jan. 2024 | DST/AJ/029
CON/KAD/080/CP[2]	5 Jan. 2024 | DST/AJ/030
CON/KAD/010[2]	22 Jul. 2025 | DST/W/016
CON/PSU/007	17 Apr. 2015 | DST/W/115
CON/PSU/007/CS1	13 Sep. 2023 | DST/S/039
CON/SAV/001	17 Apr. 2015 | DST/AB/005
CON/SAV/002[2]	7 Apr. 2016 | DST/AB/006
CON/SAV/003[2]	15 Oct. 2025 | DST/AB/008
Handling precautions	13 Jun. 2025 | DST/U/055
JIG/UNI/001/D[2]	9 Jan. 2026 | DST/AE/019
KAD/ABM/101	2 Sep. 2021 | DST/V/064
KAD/ABM/102/B	18 May 2017 | DST/Y/008
KAD/ABM/102/B/EM1	13 Aug. 2021 | DST/Y/051
KAD/ABM/103	14 Jun. 2022 | DST/X/055
KAD/ADC/008	27 Sep. 2022 | DST/N/053
KAD/ADC/011/C	18 Mar. 2015 | DST/R/044
KAD/ADC/105/B	17 Jan. 2022 | DST/U/028
KAD/ADC/106/C	23 Oct. 2025 | DST/U/033
KAD/ADC/109/C/S1	19 May 2021 | DST/T/097
KAD/ADC/109/C/S2	1 Jun. 2021 | DST/U/031
KAD/ADC/111	20 Feb. 2018 | DST/X/058
KAD/ADC/112	26 Feb. 2025 | DST/V/080
KAD/ADC/113/B	27 Feb. 2026 | DST/V/059
KAD/ADC/115	23 Apr. 2025 | DST/Y/031
KAD/ADC/115/DT	8 Feb. 2024 | DST/AJ/021
KAD/ADC/115/NRTD	3 Oct. 2023 | DST/AJ/014
KAD/ADC/116	23 Oct. 2025 | DST/S/083
KAD/ADC/117/B	17 Jan. 2022 | DST/U/034
KAD/ADC/117/EC1	20 Jun. 2018 | DST/T/098
KAD/ADC/118	24 Apr. 2018 | DST/P/065
KAD/ADC/120	24 Apr. 2018 | DST/R/006
KAD/ADC/126/B	23 Oct. 2025 | DST/V/060
KAD/ADC/129/S1	9 Jul. 2024 | DST/S/085

Product	Issue date | reference number
KAD/ADC/129/S2	1 Jun. 2021 | DST/V/081
KAD/ADC/130	13 Apr. 2018 | DST/W/123
KAD/ADC/134/B	28 Feb. 2024 | DST/AA/014
KAD/ADC/135/B	15 Apr. 2026 | DST/AA/017
KAD/ADC/136/C	18 Nov. 2025 | DST/AC/006
KAD/ADC/141	9 Feb. 2022 | DST/AC/014
KAD/ARI/103/B	23 Jan. 2023 | DST/Y/044
KAD/ARR/101	13 Apr. 2015 | DST/U/047
KAD/BCU/101/E	18 Apr. 2023 | DST/Y/029
KAD/BCU/105/E	27 Jan. 2016 | DST/Y/034
KAD/BCU/140/D	19 Jun. 2025 | DST/AA/037
KAD/BCU/143	13 May 2026 | DST/Z/033
KAD/CBM/101	22 Aug. 2016 | DST/P/064
KAD/CBM/102	11 Sep. 2025 | DST/L/043
KAD/CBM/103	25 Oct. 2022 | DST/V/071
KAD/CBM/104	11 Jun. 2020 | DST/V/072
KAD/CBM/105	10 Aug. 2016 | DST/Y/038
KAD/CBM/107	11 Sep. 2025 | DST/Z/016
KAD/CDI/101	14 Apr. 2022 | DST/T/058
KAD/DAC/001/B	16 Sep. 2025 | DST/S/050
KAD/DEC/103	25 Jun. 2025 | DST/V/074
KAD/DSI/004	16 Feb. 2017 | DST/S/105
KAD/DSI/102/B	15 Nov. 2023 | DST/Y/009
KAD/DSI/104	29 May 2025 | DST/W/091
KAD/EBM/102/B	13 Jun. 2025 | DST/AB/026
KAD/EBM/103	9 Nov. 2016 | DST/W/086
KAD/EBM/104	6 Oct. 2016 | DST/AB/020
KAD/ENC/106	26 Jun. 2025 | DST/S/092
KAD/ENC/111	22 Aug. 2016 | DST/W/078
KAD/ETH/101/B	15 Aug. 2016 | DST/W/128
KAD/EXC/101	25 Oct. 2023 | DST/AA/016
KAD/ETH/102	30 Jun. 2017 | DST/V/073
KAD/FBM/103/B	31 Jul. 2017 | DST/T/085
KAD/FBM/105/B	21 Dec. 2022 | DST/AA/004
KAD/IBM/101	2 Feb. 2021 | DST/AA/005
KAD/LDC/101	17 Jul. 2024 | DST/P/048
KAD/MAT/101	5 Apr. 2024 | DST/Y/047
KAD/MBM/101	18 Jun. 2021 | DST/X/012
KAD/MBM/102	12 May 2026 | DST/X/054
KAD/MDC/103	15 Aug. 2025 | DST/S/052
KAD/MDC/105	28 Jun. 2024 | DST/AH/027

Product	Issue date | reference number
KAD/MEM/004/B	17 Jun. 2021 | DST/T/054
KAD/MSB/103/C	14 Oct. 2025 | DST/V/006
KAD/PBM/104	15 Nov. 2023 | DST/AC/013
KAD/SDI/103	22 May 2015 | DST/U/015
KAD/SWI/101	16 Apr. 2015 | DST/W/009
KAD/SWI/102	21 Jan. 2021 | DST/V/065
KAD/SWI/107	16 Apr. 2015 | DST/Y/025
KAD/SWI/108	18 Jan. 2022 | DST/Y/045
KAD/TDC/002/D/10M	22 Apr. 2022 | DST/T/051
KAD/TDC/101	4 Jun. 2024 | DST/Y/022
KAD/TDC/102/B	12 Sep. 2025 | DST/Y/012
KAD/TDC/107	18 Nov. 2025 | DST/V/032
KAD/UAR/102/C	23 Jan. 2023 | DST/X/084
KAD/UBM/103	27 Sep. 2022 | DST/Y/060
KAD/UBM/106	26 Feb. 2020 | DST/AF/038
KAD/VDC/001	19 Jan. 2021 | DST/N/065
KAD/VID/106/B	12 Oct. 2023 | DST/AB/032
KAM/CDC/101	24 Apr. 2018 | DST/S/032
KAM/CHS/02F	21 Feb. 2020 | DST/X/033
KAM/CHS/03F	21 Feb. 2020 | DST/P/062
KAM/CHS/03U/E	9 Jul. 2021 | DST/W/042
KAM/CHS/04L/B	16 Apr. 2015 | DST/N/043
KAM/CHS/05F/SC	18 Jan. 2022 | DST/S/004
KAM/CHS/06U/E	1 Apr. 2025 | DST/W/052
KAM/CHS/09U/E	1 Apr. 2025 | DST/W/057
KAM/CHS/12R/E	12 Jan. 2016 | DST/AB/027
KAM/CHS/13U/E	9 Jul. 2021 | DST/W/065
KAM/DMY/001	9 Feb. 2015 | DST/U/002
KAM/MEM/113	15 Sep. 2025 | DST/X/067
KAM/PSU/011/B	16 Apr. 2025 | DST/Z/021
KAM/PSU/012/B	29 Apr. 2025 | DST/W/043
KAM/PSU/014	16 Apr. 2015 | DST/Y/024
KAM/TCG/105	12 May 2026 | DST/Z/025
KAM/TCG/106	12 May 2026 | DST/AG/014
KIT/001[2]	5 Mar. 2026 | DST/J/063
LID/001	10 May 2024 | DST/J/061
SAM/DEC/008	26 Jun. 2025 | DST/Z/010
Wireless data acquisition evaluation kit	19 Aug. 2021 | DST/AC/011
Unboxing wireless data acquisition kit	16 Mar. 2023 | DST/AH/020

Product	Issue date | reference number
Ground station products	
GTS/BAY/001	3 Mar. 2015 | DST/W/024
GTS/MCI/001/C	27 Mar. 2015 | DST/Z/009
Recorder products	
CompactFlash cards	9 Mar. 2026 | DST/Y/032
NET/REC/001	10 Jul. 2025 | DST/U/039
Solid State Drives	20 Jul. 2021 | DST/Y/033
SSR/CHS/001/E	12 May 2026 | DST/AH/031
Network switch products	
ACC/KIT/005	16 Oct. 2025 | DST/W/034
BAC/MMO/001/F10	23 May 2016 | DST/W/116
BAC/MMO/001/F19	20 Mar. 2015 | DST/W/117
CON/MMO/001/F10A	26 Feb. 2026 | DST/W/113
CON/MMO/001/F19A	20 Mar. 2015 | DST/W/114
Network Cables[2]	5 Mar. 2026 | DST/W/022
NET/SWI/001	11 Jul. 2025 | DST/U/040
NET/SWI/006	11 Jul. 2025 | DST/V/049
NET/SWI/101/B	11 Jul. 2025 | DST/AA/015
NET/SWI/101/C	12 May 2026 | DST/AC/004
Avionics products	
OBE/POE/001	22 Apr. 2026 | DST/AJ/054

1. This document is now also available in the Acra KAM-500 Databook. Changes to this document are recorded in the “Revision history” section of the *AXN Databook* only.
2. These documents are now also available in the AXN Databook. Changes to these documents are recorded in the “Revision history” section of the Acra KAM-500 Databook only.

DAS Studio 3 software known issues

Modules supported in this release

See “Products supported by DAS Studio 3” on page 18.

New features added in this release

Feature description
Added support for AXN/EBM/401, AXN/ADC/407

Issues fixed in this release

Issue #	Project	Description
DAS-6051	DAS Studio General	Classic Shunt setting is ignored for all non-bridge channels
DAS-6011	DAS Studio General	add with connections failed with error
DAS-6005	DAS Studio General	renaming Package Name then changing PCM bit size crash
DAS-5992	DAS Studio General	too small to fit PTFR
DAS-5986	DAS Studio General	Non expected repeated sample
DAS-5981	DAS Studio General	Ch 7 cannot re-open xidml file

Known issues in this release

Issue #	Project	Description
CFT-76	Calibration Fetch	Calibration Fetcher - Index was outside the bounds of the array.
DAS-6063	DAS Studio General	When MEM113 and ENC106 are defined in the same chassis, user gets warning about Mode 4
DAS-6041	DAS Studio General	Error while importing this DBC files
DAS-6033	DAS Studio General	subparameter remains in xidml file
DAS-6030	DAS Studio General	Subparameters are placed in PCM when smart mode is used
DAS-6025	DAS Studio General	ADC014 changes mode during shunt while shunt is not enabled
DAS-6010	DAS Studio General	16 bits parameter shows 16 in PCM while it should be 12,4
DAS-6009	DAS Studio General	Discrete parameter should only be created at the window closure
DAS-6008	DAS Studio General	Discrete consistency : some discrete parameters show fragmentation 12,4 while some show 4
DAS-6007	DAS Studio General	Fragmentation value wrong after creating discrete
DAS-5984	DAS Studio General	vertical PCM placement is not optimal
DAS-5971	DAS Studio General	import serial bus is disabled after importing a package

Issue #	Project	Description
DAS-5970	DAS Studio General	import serial bus can only import one message at the time
DAS-5933	DAS Studio General	KAD/ADC/134/C/100m and KAD/ADC/134/C/10V should be removed from the palette
DAS-5914	DAS Studio General	ADC126 can compile for a gain of 100 and 1000
DAS-5898	DAS Studio General	Localization issue : The value '100' is not within the range, 0,00 to 1,00 in steps of 0,010
DAS-5866	DAS Studio General	Package generator error: does not have an IENA key
DAS-5858	DAS Studio General	Object not referenced after adding MAT101 processes
DAS-5841	DAS Studio General	importing CSV creates wrong commutation list for unplace parameters
DAS-5840	DAS Studio General	save xidML make DAS Studio to crash
DAS-5810	DAS Studio General	XIDML file takes a long time to load , verify and hard to navigate
DAS-5806	DAS Studio General	Failed to assign CVT address for parameter
DAS-5800	DAS Studio General	DAS Studio crashes when launching Quicklook menu with non english characters in the path
DAS-5799	DAS Studio General	Setting up the EBM-101-B as MCS does not verify until the file is loaded - possible refresh issue
DAS-5777	DAS Studio General	50Ksps doesn't verify for the AXNADC401
DAS-5775	DAS Studio General	MEM113 not coherent when 8192Hz is stored
DAS-5772	DAS Studio General	cannot set IP other than PC ethernet adapter subnet range
DAS-5727	DAS Studio General	AXNVID401 is not sampled fast enough
DAS-5726	DAS Studio General	AXNVID401 FIFO is disabled but MPEG2TSInTelemetry parameter still can be placed in the PCM
DAS-5491	DAS Studio General	byte order not correct when using 64 bits CAN parameter
DAS-5490	DAS Studio General	import with add with connections refresh issue
DAS-5489	DAS Studio General	MEM103 annoying multiple popup window if above 16KSPS
DAS-5488	DAS Studio General	Takes 2 hours to change the number of occurrences from 1 to 10
DAS-5486	DAS Studio General	MEM401 doesn't see PICO packets
DAS-5472	DAS Studio General	don't discover three or more network adapters
DAS-5423	DAS Studio General	DS compiler reports Bitrate 4194304 Hz can cause jitter when there is no PCM in the BCU/101/E
DAS-5396	DAS Studio General	crash when type packet filter IP in EBM102
DAS-5394	DAS Studio General	13 bits start sequence should not be allowed

Issue #	Project	Description
DAS-5393	DAS Studio General	Adding Start Sequence with wildcard creates an Error box on Start Sequence, save and close clears
DAS-5391	DAS Studio General	VID106 packetizer packet doesn't get removed when you remove the VID106 module
DAS-5384	DAS Studio General	burst placement crash
DAS-5381	DAS Studio General	AXNPCM401 GUI does not enforce maximum minor frame length
DAS-5380	DAS Studio General	AXNPCM401 GUI does not show bitrate
DAS-5353	DAS Studio General	Changing Src IP on the module setting tab doesn't change it on the packages tab src IP
DAS-5340	DAS Studio General	duplicate packets on port 1 and port on the AXNBCU402C
DAS-5317	DAS Studio General	KAD/EBM/10X parameters from ethernet builder will be removed if NET/SWI/101 is placed before KAM500
DAS-5296	DAS Studio General	remove Axon DAU makes DAS Studio to crash
DAS-5293	DAS Studio General	Parameter search Error: an item with the same key has already been added
DAS-5292	DAS Studio General	Cannot schedule transmission of packet DAU1_S1-ICP_1BP_1A-ut0. Packet transmit time in ticks 5136 exceeds latest possible transmit time 3744
DAS-5283	DAS Studio General	UBM105 Ch1 and Ch2 not working
DAS-5276	DAS Studio General	AXNTCG401B - Warning : No Time CMD Packets will be sent to the BCU - can be ignored
DAS-5247	DAS Studio General	KADABM101 - Importing ARINC-429 package causes crash when "Use import file name for link" is enabled.
DAS-5234	DAS Studio General	should not show any packages on the TCG105 and TCG106 i.e. parser of NMEA doesn't work
DAS-5219	DAS Studio General	Serial Builder - Double clicking on N/A fields allows a value to be written.
DAS-5216	DAS Studio General	transmission assistant - Export to CSV file - when a parameter is renamed , the old and new param names are both exported
DAS-5214	DAS Studio General	Package generator does not show parameters from remote chassis when using MEM-x03
DAS-5149	DAS Studio General	Ch10 Packetizer packets not returned correctly from XidML snippet
DAS-5148	DAS Studio General	Parser Type is not contained in CBM Ch10 display for Packetizer
DAS-5105	DAS Studio General	AXNADC406 unused channels
DAS-5081	DAS Studio General	SNMP doesn't get programmed if a NETSWI101 is not present
DAS-5051	DAS Studio General	First two words should be sync words but found 73_1PDU9_Y and EB98
DAS-5029	DAS Studio General	AXNICP40x should limit on the digital gain
DAS-5007	DAS Studio General	AXNADC406 error is not clear

Issue #	Project	Description
DAS-5003	DAS Studio General	Failed to generate timing window error when EBM is unnecessarily connected , in the NET-SWI routing cross bar , to BCU in the same chassis
DAS-4989	DAS Studio General	removing MAT101 input parameter should not remove it from the source
DAS-4949	DAS Studio General	Editing PCM map in ENC106 removes FormatID, and PCM map disappears.
DAS-4948	DAS Studio General	Auto naming with number increments, add/padded with leading 0
DAS-4799	DAS Studio General	transmission assistant - sampling rate picked is not possible
DAS-4776	DAS Studio General	Filtering - Selecting anything other than binary display, disables the input field.
DAS-4764	DAS Studio General	MEM113 Trigger condition doesn't get saved
DAS-4736	DAS Studio General	Import one message only on a Serial Bus monitor channel
DAS-4668	DAS Studio General	Bridge Balancer log should have an option to output more info
DAS-4665	DAS Studio General	Modifying the occurrences in the Placed Data tab will not change the rate in the transmission assistant
DAS-4623	DAS Studio General	TAG parameters TAB not available in Ethernet builder if a Switch with import port also in project
DAS-4597	DAS Studio General	AXNENC40x: Ethernet builder should limit the number of frames according to the parser buffer depth - the number parser slots and parser buffer depth are related
DAS-4588	DAS Studio General	DAS Studio hangs when attempting to relocate parameters in package content payload
DAS-4536	DAS Studio General	KADMEM004B32G - Not enough space to place parameters into MEM package
DAS-4499	DAS Studio General	Save As xidML does not retain the parameter information from the transmission assistant
DAS-4489	DAS Studio General	slow when you click on the BCU140 link to display packets
DAS-4467	DAS Studio General	Bad data coming out of an ENC106 that verifies successfully - potentially due to CVT reuse
DAS-4441	DAS Studio General	MEM113 storage time/BCU ethernet output rate - Not implemented for Packetizers.
DAS-4399	DAS Studio General	DSI104-5V should not be in the module palette
DAS-4398	DAS Studio General	Modifying the destination IP on the package viewer makes the view to jump to the first packet and on the left
DAS-4397	DAS Studio General	EXC101 limits are wrong
DAS-4391	DAS Studio General	Windows 10 launch issue. WaitForInputIdle failed. This could be because the process does not have a graphical interface.
DAS-4381	DAS Studio General	Lookup file should be able to load into the linearization URL field
DAS-4360	DAS Studio General	spaces in the DAS Studio install path causes Scheduling Error : Already ReportedACRA.Common.Helpers.ReportedException: Already Reported ---> System.IO.FileNotFoundException

Issue #	Project	Description
DAS-4322	DAS Studio General	Refresh issue on packages tab when SBM101 setting EFEX / STANAG are changed. User needs to click on another module and then back for change to update
DAS-4306	DAS Studio General	Do not ask you to save before verifying/programming if your xidml file got modified and not saved
DAS-4271	DAS Studio General	AXNENC402 Error in DAS Studio about Ch7 PTFR length while the setup compiles with no errors
DAS-4270	DAS Studio General	Hdefml file missing error when running discovery on AXNBCU401 module
DAS-4266	DAS Studio General	ENC402 Ch7 length in Bytes error is not correct
DAS-4256	DAS Studio General	KADENC106 and KADBCU101 Major Pulse currently not supported by DAS Studio
DAS-4251	DAS Studio General	Compilation error doesn't tell you the exact module for which it happens
DAS-4226	DAS Studio General	Adding ETH report word to it's own packet should give a compile error
DAS-4209	DAS Studio General	After discovering a NETSWI101C, all the modes for each port map to other ports are shown - duplication on screen - workaround is save the file and reload
DAS-4206	DAS Studio General	remove orphan parameter doesn't work for tags parameter
DAS-4153	DAS Studio General	AXNENC402 frame is cleared after a change in the Ethernet builder
DAS-4151	DAS Studio General	AXNADC405 differential ended configuration, with signal source isolated from module ground (pull-down resistor on the module enabled)
DAS-4090	DAS Studio General	file: added in the MDC103 path suffix
DAS-4040	DAS Studio General	Custom control validation error expected 'Current' but found 'Voltage' on setting 'Excitation Mode' when setting 'Input Mode' is 'ICP sensor'
DAS-4032	DAS Studio General	Adding a Package to KADFBM105B shows drop down settings for PT-Packet and LLP
DAS-3993	DAS Studio General	PCM frame drops
DAS-3984	DAS Studio General	hover tip only shows for the initial connection
DAS-3978	DAS Studio General	cannot open xidML file System.ArgumentNullException: Value cannot be null. Parameter name: name
DAS-3974	DAS Studio General	Discrete parameters can be added over Ethernet
DAS-3959	DAS Studio General	removing chassis doesn't remove the modules
DAS-3949	DAS Studio General	AXNENC401 generic parsing: Not Used is the only allowed value
DAS-3933	DAS Studio General	AXNBCU402 connected directly to a KADBCU140 shows only packets from the KADBCU140
DAS-3900	DAS Studio General	Multiset and edit are inconsistent

Issue #	Project	Description
DAS-3878	DAS Studio General	Ethernet transmitter 'MySSR_CHS_001_D' can handle less than 1048576 transfers but 1503162 requested - problem is setup only contains packetizer packets - way around create a place packet to force an acquisition cycle
DAS-3876	DAS Studio General	NETSWI101 in PTP Transparent Switch should create an error if the ports do not use the same PTP version
DAS-3875	DAS Studio General	programming error has a confusing slot
DAS-3858	DAS Studio General	Naming of functionalities in bus packetizer modules
DAS-3841	DAS Studio General	Adding parser slot to UBM/401 corrupts xidml
DAS-3812	DAS Studio General	Multiple selection and renaming of parameters in the Placed Data window of the Packages Tab does not follow a logical renaming sequence
DAS-3805	DAS Studio General	Windows update KB4578968 creates refresh issues
DAS-3803	DAS Studio General	DSI102 and DSI102B Xdefml files are reversed for event parameter description
DAS-3795	DAS Studio General	RangeScale_Excitation_Linearization_ADC113 error
DAS-3779	DAS Studio General	Failed to generate for module KADENC106 - Mode conflict found at PCM MyIRIG-106-Ch-4Package_4_256x16 - mode is 'False' but FrameFormatIdentifier is not empty
DAS-3777	DAS Studio General	Serial Builder: parameter name edit not user friendly
DAS-3749	DAS Studio General	should not allow the user to change the UDP header transfer format
DAS-3743	DAS Studio General	Error is not clear: The given key was not present in the dictionary
DAS-3731	DAS Studio General	System.Xml.XmlException: ''' is an unexpected token.
DAS-3725	DAS Studio General	Video not present in PCM when the video is transported by a remote chassis
DAS-3721	DAS Studio General	Slave is not programmed if master chassis is missing using a SAMDEC008
DAS-3690	DAS Studio General	Commutation is not correct when a burst parameter is placed
DAS-3689	DAS Studio General	The given value of type String from the data source cannot be converted to type nvarchar of the specified target column
DAS-3674	DAS Studio General	EBM104 dataset size change makes changes on the parameter name
DAS-3663	DAS Studio General	MCS Error - Video burst transport fails to compile
DAS-3631	DAS Studio General	Slave is not discovered over ETH102
DAS-3623	DAS Studio General	Serial Number Synchronizer crashes with attached XidML when Reading Hardware
DAS-3606	DAS Studio General	Error from MCS: Cannot fit parameter XYZ into the transport packet
DAS-3603	DAS Studio General	AXNABM401 creates packetizer at 1Hz instead of a min of 39Hz

Issue #	Project	Description
DAS-3511	DAS Studio General	SSRCHS001D: "System.NotSupportedException: Unsupported value 'False' for constraint type 'System.Boolean' on setting 'PTPv1 Disable BMCA'" - way around set the setting to True on the xidML file
DAS-3506	DAS Studio General	Datasheet link disappears after programming
DAS-3503	DAS Studio General	parser tags are not functioning on the UAR102B
DAS-3473	DAS Studio General	Fixed data is expected to change according to the Shunt mode value
DAS-3422	DAS Studio General	MEM-113 should be able to log its own register MEM-113 status STATUS and ERROR_COUNT
DAS-3406	DAS Studio General	DAS Studio should enforce Only one MEM-x0x can be installed in an Acra KAM-500 chassis.
DAS-3349	DAS Studio General	AXNBCU401 with IENA pkt fails to verify
DAS-3343	DAS Studio General	Read counter parameter is missing when AXNBCU401 is discovered
DAS-3319	DAS Studio General	Empty serial number does not produce a warning or an error in DAS studio
DAS-3296	DAS Studio General	cannot program existing chassis
DAS-3289	DAS Studio General	Transmission assistant: if parameter gets "cannot place", even though you have room, you will never be able to place it
DAS-3288	DAS Studio General	Transmission assistant: You cannot unset a rate
DAS-3189	DAS Studio General	AXN ABM 401 parameter names are different depending on the controller in the chassis
DAS-3167	DAS Studio General	should place all possible parameters if an error occurs
DAS-3154	DAS Studio General	Could not establish or maintain reliable connection with the hardware at IP-address
DAS-3148	DAS Studio General	BCU101 mixed with BCU105 should not compiled
DAS-3105	DAS Studio General	XIDML file with ghost parameters without any instrument or source generated after splitting registers
DAS-3084	DAS Studio General	MCS modifies the sub-parameters into a parameter
DAS-3050	DAS Studio General	cfgcnt file created when programming configuration
DAS-3010	DAS Studio General	should have not compiled due to the minimum transmit time
DAS-2909	DAS Studio General	importing 1553 message requires the parameter section
DAS-2895	DAS Studio General	DAS Studio noncritical compiler backplane timings warning should be hidden from the log and available as a debug option only
DAS-2881	DAS Studio General	Transmission assistant should start on the first available minorframe when vertical placement
DAS-2880	DAS Studio General	Scheduling Error : Failed to generate timing window for
DAS-2854	DAS Studio General	Message server log is not showing correct SNMP OID Setting

Issue #	Project	Description
DAS-2846	DAS Studio General	Exception Invalid XidMLFile:14zo2nbd.sge , Inner Exception System.ArgumentNullException: La valeur ne peut pas être null
DAS-2819	DAS Studio General	AXNTDC401 when uses built-in temperature sensors for cold junction compensation, will be -2C deg off expected value on thermocouple channels
DAS-2703	DAS Studio General	LoTime sometimes is described as BCD and sometimes as BitVector
DAS-2693	DAS Studio General	EBM102 process prevents from creating generic parser flow
DAS-2633	DAS Studio General	Scheduling Error : Estimated ticks 12447892 needed to schedule 6223946 transfers is too much to fit in 1000000 ticks due to localization issue
DAS-2632	DAS Studio General	A configuration with a DEC003 in asynchronous mode shows spikes
DAS-2629	DAS Studio General	Status Stream Identifier is for IENA Key too
DAS-2571	DAS Studio General	Compiler does not report an error when MCS turned off. BCU resets
DAS-2552	DAS Studio General	ARINC429 builder the default label format is octal but the "default" is instead associated to the decimal
DAS-5894	DAS Studio General	No output from ADC-136 when erasing MEM-113 in format 8 or idle in format 4
DAS-2423	DAS Studio General	VID103 timer doesn't work
DAS-2389	DAS Studio General	Warning. Default Calibration Data used for module KAMCDC101
DAS-2307	DAS Studio General	97012 Warning : Late transfer at tick 1840 with lateness 2. PAR_TS1[15:0](0)<<MPEG2TS[15:0]-s(30+1)/610
DAS-2301	DAS Studio General	DAS Studio for ENC-106 in mode select saves a file with FrameFormatIdentifier overlapping a parameter
DAS-2295	DAS Studio General	Smart placement fails to place parameters that fit in the PCM frame
DAS-2294	DAS Studio General	A xidml file with a PCM package does not show up in das studio when modes are enabled
DAS-2262	DAS Studio General	Failed to create parser parameter P_MyKAD_EBM_102_B_Report : There is no parser slot allocated for the Package MyPlacediNET-XPackage
DAS-2169	DAS Studio General	Attached are some app/tool cases of font not changing when font option is change under options
DAS-2143	DAS Studio General	Valid UAR parsed data only starts at data word offset 2 onwards
DAS-2132	DAS Studio General	Quicklook fails to open, giving error with no detail due to path issue. Quicklook cannot find SAMDEC dll as current working directory has changed
DAS-2104	DAS Studio General	CVSD created by DAS Studio do not match the TEC-NOT-067
DAS-2057	DAS Studio General	Error compiling doesn't help finding where the issue is ..."Value was either too large or too small for a UInt32"
DAS-2010	DAS Studio General	Calibration files are not stored under the C:\ProgramData\ACRA anymore

Issue #	Project	Description
DAS-1971	DAS Studio General	ALL the EBM104 parameters to be removed from the iNET-X /PCM packets after an import
DAS-1968	DAS Studio General	EBM104 not coherent on parameter name
DAS-1923	DAS Studio General	Parsing MCS and Generic in the EBM is not intuitive
DAS-1917	DAS Studio General	Package import , parameter no longer sourced from user module but from controller
DAS-1916	DAS Studio General	Attempting to elevate any sub-parameter on a 16-bit boundary to a payload parameter without introducing overlaps.
DAS-1880	DAS Studio General	Bridge balancer adds fields to the XIDML not included in XDEFML
DAS-1865	DAS Studio General	IP Programmer reports a false Fail message
DAS-1855	DAS Studio General	After a calibration error occurs during programming from DAS Studio, the message box appears after the end of the operation to inform the user that the system programmed successfully when it did not
DAS-1821	DAS Studio General	Programming cannot be cancelled
DAS-1772	DAS Studio General	Default Stream ID of FFFFFFFF is the same value as SSR/CHS/001/B default filter, hence packets with that stream ID will not be transmitted, unless filter is changed.
DAS-1748	DAS Studio General	Recorder Status Tool in DAS Studio does not report errors connecting to recorders
DAS-1731	DAS Studio General	DSI102 should not compile on the attached setting
DAS-1666	DAS Studio General	DAS Studio - The value 'OffsetBinary' is not valid - BitVector is the only allowed value
DAS-1647	DAS Studio General	Scheduling Error : Failed to generate timing window for ANE2[15:0](0)<<(Parser9:36)[15:0]-s(7+7)/56
DAS-1639	DAS Studio General	MCS does not need to transmit the transport package at the same rate as a secondary PCM transmitter package in a slave chassis.
DAS-1638	DAS Studio General	Quite slow to add few parameters into a PCM with some parameters already placed
DAS-1635	DAS Studio General	DEC103 is limited to 8Mbits in synchronous mode but DAS Studio compiles successfully
DAS-1632	DAS Studio General	MCS packets should not be created
DAS-1621	DAS Studio General	No decimation on analog modules should create an error
DAS-1615	DAS Studio General	Changing rate on multiple parameters is only possible if the mouse is still on the selected area
DAS-1614	DAS Studio General	When parameters are placed into the PCM, users should not be allowed to change sampling rate
DAS-1609	DAS Studio General	Parameter name should not contain dots otherwise they cannot be opened by Matlab
DAS-1583	DAS Studio General	Video burst in MCS for PCM fails compiling
DAS-1575	DAS Studio General	Video cannot be transmitted over ETH and over PCM simultaneously

Issue #	Project	Description
DAS-1564	DAS Studio General	VID106 or 103 in 2 different packages must have the same sampling rate
DAS-1164	DAS Studio General	Cannot uses "/" in #define statements for MAT101 Header files
DAS-1163	DAS Studio General	When manually defining parameters for parser packages the full list of parameters available is shown
DE-52	DataExporter	MATFILE 5 not working
DE-21	DataExporter	Error while loading matfile5 generated by DataExporter
MCS-230	Multi Chassis Scheduler	DAS Studio create a link appending "_packetizing" when running the MCS even when there is no package attached.
MCS-228	Multi Chassis Scheduler	Multi Chassis scheduler - Project with VID-106-B in remote computer creates incorrect packets
SCS-487	Single Chassis Scheduler	Compiler error with synchronous DEC103 - Failed to generate timing window for DECData
SAC-4	Standalone Compiler	Das Studio Program - XidML file is compiled whether it has output or not - No warnings or errors
SKD-155	Studio Hardware Discovery	Cannot discover SSRREC001
SKD-141	Studio Hardware Discovery	Discovering axon hardware fails with errors, 3.4.21 #10136
SKD-129	Studio Hardware Discovery	DAS studio does not report an error when discovering 2 Axon chassis with the same IP address
SKD-122	Studio Hardware Discovery	DAS Studio discovers the AXNTDC401 with configuration errors
SKD-119	Studio Hardware Discovery	Systems programmed with 3.4.10 cannot be discovered with 3.4.11 using a AXNBCU401 as it is NOT supported.
SKD-112	Studio Hardware Discovery	Discover AXN/ABM/401 - Exception Invalid XidMLFile:skilfpyu.xkq , Inner Exception System.ArgumentNullException: Value cannot be null. Parameter name: source
SKD-87	Studio Hardware Discovery	Discovery will always return a AXNCHS16U no matter what the chassis size when using AXNBCU401
SKD-82	Studio Hardware Discovery	Cannot save file and error is issued when the IP of a switch is added to discovery
PB-98	Studio Package Builder	DAS Studio PCM frame loses focus when zooming in
PB-79	Studio Package Builder	Package Generator does not place parameters from KADSWI108
PKG-749	Studio Packages Tab General	Ghost discrete parameter appears in XidML file when saving without source parameters

Issue #	Project	Description
PKG-729	Studio Packages Tab General	BCU101C Syncword not updating correctly
PKG-703	Studio Packages Tab General	Burst parameter occurrences not displayed correctly in the Placed Data grid
PKG-702	Studio Packages Tab General	Changing burst parameter properties in the Placed Data grid replaces the burst parameter with a single instance
PKG-692	Studio Packages Tab General	Transmission assistance does not update when fragmentation error is caused by the placed content grid
PKG-669	Studio Packages Tab General	Placement Preferences not displayed as selected
SPC-146	Studio Power Calculator	Power calculator sometimes does not show up with 3F chassis
SPC-137	Studio Power Calculator	No power consumption extension file for AXN_TCG_402_C.xdefml
SPC-136	Studio Power Calculator	No power consumption extension file for AXN_TCG_401_C.xdefml
SPC-135	Studio Power Calculator	No power consumption extension file for AXN_EBM_401.xdefml
SPC-86	Studio Power Calculator	Possibility to enter the current directly instead of a load in ohms
SQL-42	Studio Quicklook	The NET/SWI/101/C status packet transmission setting does not get decommed by Quicklook
SUAR-24	Studio Serial Builder	UBM-103 does not support idle time - Some parsing options such length only on Serial Builder for UBM-103 are incorrect
SUM-130	Studio User Manual	Parameter units
XDF-446	xDefML File	Pull-down Resistor is hardwired to Disabled when D-E is selected in the AXN-ADC-405. This should be optional

GTS SDK 3.3

Modules supported in this release

See GTS SDK 3.3 data sheet for list.

New features in this release

See GTS SDK 3.3 data sheet.

Known issues in this release

Issue #	Project	Description
GDSDK-182	GTS SDK	SystemDefinitionAPI does not allow manipulating major frame of PCM.

Issue #	Project	Description
GDSDK-181	GTS SDK	GetGTSStatus(ex) has very poor performance.
GDSDK-180	GTS SDK	GetBufferParameterMapping failed at the SyncWord at front.
GDSDK-178	GTS SDK	Need to be able to retrieve part reference from type number.
GDSDK-161	GTS SDK	Out of lock (LossStatusCount) when testing GTS/DEC/005/C with 20M, NRZ-L and Bit-sync. This is none issue when using Borland C++ sample code.
GDSDK-157	GTS SDK	Overflow at SDK Ring Buffers occurs when going above 6.5MHz. This is none issue when using Borland C++ sample code.
GDSDK-149	GTS SDK	Function to return the card serial number is required.
GDSDK-36	GTS SDK	SDK Installer always installs "MicrosoftWindowsInstaller 3.1" regardless of whether or not it was already installed. This will affect the installation time.
GDSDK-15	GTS SDK	SystemDefinitionAPI: Does not support setting up Major Frames.
GDSDK-14	GTS SDK	GroundStationAPI: Does not support setting up "Name" on FrameWords in a PCM Package.
GDSDK-3	GTS SDK	SystemDefinitionAPI: Rename IMinorFrameWords.RemoveWord (indexToRemove) parameter as its' causing confusion.

Issues fixed in this release

Issue #	Project	Description
GDSDK-177	GTS SDK	SystemDefinitionAPI writes '0,2' instead of '0.2' at 'Acquisition Loop Bandwidth' which make it failed to be read.
GDSDK-176	GTS SDK	SystemDefinitionAPI failed to read XidML when it contains 'Generic PC'.

Products supported by DAS Studio 3

For a list of products supported by DAS Studio 3, see the *DAS Studio 3* data sheet.

Legacy modules not supported by DAS Studio 3

Module	Module	Module
KAD/ADC/001	KAD/ENC/004/ET	KAD/UAR/001
KAD/ADC/002/B/100m	KAD/ENC/005/B/RS	KAD/UAR/002/B
KAD/ADC/002/B/1V	KAD/ENC/006/HA1	KAD/UAR/003
KAD/ADC/002/C/100m	KAD/ENC/006/HA2	KAD/UAT/101
KAD/ADC/002/C/10V	KAD/ENC/006/HA3	KAD/UTL/001
KAD/ADC/002/C/1V	KAD/ENC/006/HA4	KAD/UTL/102
KAD/ADC/003	KAD/ENC/006/X1	KAD/UTL/102/X1
KAD/ADC/003/B	KAD/ENC/006/X2	KAD/UTL/102/X2
KAD/ADC/005	KAD/ENC/006/X5	KAM/ADC/004
KAD/ADC/006	KAD/ETH/001/B	KAM/ADC/004/05/FB/350
KAD/ADC/009/QB100	KAD/ETH/001/C	KAM/ADC/009/S1/5KHZ
KAD/ADC/009/QB350	KAD/LDC/001/01	KAM/ADC/009/S2/ET/MA
KAD/ADC/009/S1	KAD/MAT/001/B	KAM/ADC/011/10V
KAD/ADC/009/S2	KAD/MBC/001	KAM/ADC/012/10V

Module	Module	Module
KAD/ADC/009/S4	KAD/MBI/001	KAM/ADC/013
KAD/ADC/010/B	KAD/MBI/001/B	KAM/ADC/014/10V
KAD/ADC/010/C	KAD/MBI/102/00	KAM/ADC/019/100
KAD/ADC/011/B/X1	KAD/MBI/103	KAM/CDC/001
KAD/ADC/011/C/X1	KAD/MDC/001	KAM/CDC/001/B
KAD/ADC/021	KAD/MDC/104	KAM/CDC/001/C
KAD/ADC/021/RT	KAD/MEM/004/4G	KAM/DPI/001
KAD/ADC/106	KAD/MSB/001	KAM/ENC/002
KAD/ADC/109/S1	KAD/MSB/001/B	KAM/ENC/003
KAD/ADC/117	KAD/MSB/002/B	KAM/ENC/006
KAD/ADC/126	KAD/MSB/003	KAM/ENC/006/X3
KAD/BCU/001	KAD/MSB/003/B	KAM/ENC/006/X4
KAD/BCU/001/B	KAD/MSB/103	KAM/ENC/007
KAD/BCU/001/CX	KAD/PBM/002	KAM/MAT/001/00
KAD/BCU/003	KAD/PBM/002/BA1	KAM/MEM/001
KAD/BCU/003/SB	KAD/RTC/002	KAM/MEM/002/00
KAD/BCU/101	KAD/SDC/002/90V	KAM/MEM/003
KAD/BCU/102	KAD/SDI/001	KAM/MEM/003/B
KAD/BCU/102/B	KAD/SIG/101	KAM/MEM/003/C
KAD/BCU/104	KAD/TCG/001	KAM/MEM/003/D
KAD/BCU/105	KAD/TCG/001/B	KAM/MSB/002
KAD/BCU/105/B	KAD/TDC/001/10K	KAM/MSB/002/B/TC
KAD/CBC/101	KAD/TDC/001/2K2	KAM/TCG/102
KAD/CBC/102	KAD/TDC/002/ET/00	KAM/TDC/003
KAD/CBI/101	KAD/TDC/002/B/00	KAM/UAR/002
KAD/DEC/002	KAD/TDC/002/B/ET/00	KAM/VID/002
KAD/DPI/002	KAD/TDC/004	MKM/ADC/005
KAD/DSI/003	KAD/TDC/004/ET	MKM/SDC/001
KAD/ENC/004	KAD/TDC/006	MKM/CHS/02U
KAD/ENC/004/B/ET	KAD/TDC/006/RT	MKM/ADC/014/R1
MKM/ADC/014/R2	MKM/BCU/101/B	NET/SWI/004/EM1
MKM/BCU/101	MKM/UAR/102	SSR/CHS/001

Acronyms

This document lists common acronyms and terms used in telemetry. For more telemetry terminology, see *TEC/NOT/026, Dictionary of telemetry terms*.

AAAF

Analog Anti-Aliasing Filter. See AAF.

AAF

Anti-Aliasing Filter. A filter which reduces aliasing effects by restricting the bandwidth of the sampled signal to approximately satisfy the sampling theorem, that is, most of the signal energy is kept within a bandwidth of half of the sampling frequency.

ACK

ACKnowledgment code. The communications code sent from a receiving station to a transmitting station to indicate that it is ready to accept data. It is also used to acknowledge the error-free receipt of transmitted data.

Acra KAM-500

Acra's flagship modular data acquisition product.

A/D

Analog to Digital. Conversion of analog signals to digital.

AES

Advanced Encryption Standard. An NIST-standard cryptographic cipher that uses a block length of 128 bits and key lengths of 128, 192 or 256 bits. Officially replacing the Triple DES method in 2001, AES uses the Rijndael algorithm. AES can be encrypted in one pass instead of three, and its key size is greater than Triple DES's 168 bits.

AHeAD

Aircraft Health Analysis and Diagnosis. Embraer system for predictive maintenance.

AHUMS

Adaptive HUMS. See HUMS.

ARO

After Receipt (of) Order.

ARP

Address Resolution Protocol. A protocol used to obtain a node's physical hardware address.

ARTM

Advanced Range TeleMetry program. Tier 1 products use SOQPSK techniques to double the data rate in a given RF bandwidth; Tier II uses multi-h techniques to treble it. PCM/FM is sometimes referred to as Tier 0.

ATP

Acceptance Test Procedure. The final phase of design validation, which ensures that each component of a customer's system (hardware and software) work together.

BAG

Bandwidth Allocation Gap. Allocated data transmission interval in an ARINC 664 Part 7 network.

Bandwidth

The frequency range occupied or required by a signal. Pulse Code Modulation (PCM) signals contain harmonics that are usually removed by pre-modulation filtering to reduce the bandwidth needed for telemetry transmission or tape recording. However, insufficient bandwidth may result in the loss of essential information and prevent the recovery of PCM encoded data.

Barker codes

A selection of bits to be used as frame sync words so as to minimize the probability of false lock. For more information, see the Reference section of the *Applications Handbook*.

BDS

Best Data Selector. Diversity receiver method where the stream with the least data errors, such as sync word slips, and sync word bit errors, is used.

BER

Bit Error Rate. The average number of bits transmitted in error. Every data link has a theoretical minimum error rate depending on the noise present. A reasonable encoder/decoder system linked via copper would have a BER of 10-9. BERs are specified for encoders, data links (especially radio), bit syncs, and decoders.

BIO-L

Bi-phase Level. See PCM Codes.

BIO-M

Bi-phase Mark. See PCM Codes.

BIO-S

Bi-phase Space. See PCM Codes.

BOM file

File used to store original hardcopy BOMs (Bill of Materials).

bps

Bits Per Second. The measurement of the speed of data transfer in a communications system. Note that Bps is used to denote Bytes Per Second.

BSS

Best Source Selector. Diversity receiver method where the stream with the best signal-to-noise ratio is used.

CAIS

Common Airborne Instrumentation Systems. Developed by the U.S. Department of Defense to promote standardization commonality and interoperability among aircraft test instrumentation systems.

CAR

Corrective Action Report. A report into any defect in any product or procedure.

cBIT

Continuous Built-In-Test.

CBM

Condition-Based Maintenance. Used primarily to predict when to service the machine rather than to repair it, but no clear distinction. Originally used for industrial machines and generators, then for airplanes.

COFDM

Coded Orthogonal FDM. See FDM.

COMSEC

Compound word for COMmunications SECurity.

COO

Confirmation of Order. The document issued to customers that confirms terms and conditions, price, and quantities of the last revision of RFQ.

COTS

Commercial Off-The-Shelf. Refers to ready-made merchandise that is available for sale.

CSMA/CA

Carrier Sense Multiple Access/Collision Avoidance. A transmission protocol that attempts to avoid collisions that can occur when two nodes attempt to transmit at the same time on the bus rather than detect them, as in CSMA/CD.

CSMA/CD

Carrier Sense Multiple Access/Collision Detection. The Local Area Network (LAN) access method used in Ethernet. When a device wants to gain access to the network, it checks to see if the network is quiet (senses the carrier) before it begins transmitting its data. Collision Detection allows for the node to be aware if another node begins to transmit causing their frames to collide.

CSS

Correlated Source Selection. Diversity receiver method where two streams with roughly the same signal-to-noise ratio and data error rates are aligned (correlated) and voting or soft-bits are used to decide on a bit-by-bit basis.

D/A

Digital to Analog. Conversion of digital signals to analog.

DAS

Data Acquisition System.

DAS Studio 3

DAS Studio 3 uses a multi-threaded design, which utilizes multi-core processors to improve performance. DAS Studio 3 lets you configure Data Acquisition Units (DAUs), network switches, recorders and ground stations in an integrated environment.

DAU

Data Acquisition Unit.

dB

Decibel. A unit which indicates a ratio of power between two signals.

dBc

Decibels relative to carrier. A common measurement (in decibels) in Radio Frequency (RF) engineering to specify the power of a sideband in a modulated signal relative to the carrier.

DHCP

Dynamic Host Configuration Protocol. A protocol that automatically assigns IP addresses to client stations logging onto an IP network.

Diversity Combining

A method, based on signal power, of switching between diverse receivers.

Diversity receivers

Using two or more streams to reduce lost data. *Temporal diversity* - sending data twice in the one stream. *Frequency diversity* - using two frequencies. *Spatial diversity* - using two receivers at different physical locations. *Polar diversity* - using left and right hand (I/Q) receivers.

DM-M

Delay Modulation Mark. See PCM Codes.

DM-S

Delay Modulation Space. See PCM Codes.

DNS

Domain Name System. A system for converting host names and domain names into IP addresses on the Internet or on local networks that use the TCP/IP protocol.

DST

Data SheeT. Every product must have a data sheet outlining the features, applications specifications, and revision history as well as any other technical data required to use it. The front leaf of the data sheet is used by Sales as a short-form data sheet which they give to potential customers.

DV

Design Verification. The stage between handover after unit test and product release; it culminates in a Design Verification Report (DVR). DV is also an acronym for the Design Verification department.

DVP

Design Verification Plan.

DVR

Design Verification Report. Every active NRE culminates in a DVR. If written after a design verification phase, it documents all the tests done and the results. If written after the suspension of an NRE, it states the reason(s) for the suspension.

Eb/No

Bit Energy/Noise Spectral Density. A measure of the signal-to-noise ratio.

EEPROM

Electrically Erasable Programmable ROM. Re-writable memory that holds its content without power. EEPROMs have a lifespan of between 10k and 100k write cycles, which is considerably greater than the EPROMs that preceded them.

EHUMS

Engine HUMS. See HUMS.

ENOB

Effective Number Of Bits.

ES

End System. ARINC 664 Part 7 end-device that produces data to be transmitted over the ARINC 664 Part 7 network.

ESS

Environmental Stress Screening. Process of exposing products to stresses in order to force latent defects to manifest themselves by permanent or catastrophic failure during the screening process.

FAT32

An enhancement of the File Allocation Table file system that supports memory media with capacities up to 2 TB.

FAQ

Frequently Asked Questions. Questions asked by both customers and Curtiss-Wright employees.

FEC

Forward Error Correction. A means of adding extra bits to reduce bit error rates. Common methods are convolutional, reduced parity, and turbo coding.

FDM

Frequency Division Multiplexing. Transmitting multiple data signals simultaneously over a single wire by using multiple carriers, each having a unique center frequency. Each data stream, such as text, voice or video, is placed into a separate carrier that is modulated by various methods.

FDAU

Flight Data Acquisition Unit.

FIFO

First In First Out. A storage method that retrieves the item stored for the longest time.

FQPSK

Feher-patented QPSK. See QPSK.

FSK

Frequency Shift Keying. A simple digital modulation technique that uses two frequencies for 0 and 1. See QPSK.

FSR

Full Scale Range.

FTI

Flight Test Instrumentation. The instrumentation system, including mounting brackets, that is used on an aircraft for flight test purposes. It is usually orange in color in order to distinguish it from standard equipment.

FTP

File Transfer Protocol. File transfer protocol that runs over TCP/IP.

FUMS

Fleet Usage Monitoring System. HUMS for a particular fleet of aircraft (not very common).

GAHMM

Global Aircraft Health Monitoring and Management. Airbus system for predictive maintenance.

GB

Gigabyte. 1GB = 1,000,000,000 bytes. This is the common definition used by storage media manufacturers.

GHUMS

Generic HUMS. See HUMS.

GSX-500

Suite of ground-station software products. Some of these products are third-party.

GTS-500

Suite of ground-station hardware products. Some of these products are third-party.

Hamming code

A method by which extra bits can be added to a word so as to detect one (or more) bit errors (and possibly fix them).

hDefML

Hardware Definition Markup Language. A hardware definition schema, used by Acra software to program Acra hardware.

HUMS

Health and Usage Monitoring System. Mostly (and originally) for helicopters. Focused on rotating parts (gear box, shaft) with specific software for frequency analysis and cumulative databases. Variants include E-HUMS (engines), T-HUMS (Turbo prop shafts).

iBIT

Initiated Built-In-Test.

ICMP

Internet Control Management Protocol. An IP protocol used to send error and control messages. The most widely known ICMP function is the Ping command which echoes a message across the network which allows the communication path between end nodes to be tested.

IEEE

Institute of Electrical and Electronic Engineers. A membership organization that includes engineers, scientists, and students in electronics and allied fields.

iDefML

An XML file for each piece of hardware, which outlines the XidML schemas that apply and the constraints imposed for each setting and a pointer to the data sheet. For Acra KAM-500 modules, it also contains register definition and EEPROM generation sections.

IGMP

Internet Group Management Protocol. The protocol that governs the management of multicast groups in an IP network.

ISI

InterSymbol Interference. A form of distortion of a signal in which one symbol interferes with subsequent symbols. This is an unwanted phenomenon as the previous symbols have a similar effect as noise, thus making the communication less reliable.

IRIG

Inter-Range Instrumentation Group. The standards body of the Range Commanders Council (RCC).

IRIG time codes

The different time codes have alphabetic designations. A, B, D, E, G, and H are the standards currently defined. The main difference between codes is their rate, which varies between one pulse per minute and 10,000 pulses per second.

IRIG 106 (Ch.4 Ch.8 Ch.10)

Inter Range Instrumentation Group. IRIG-106 is the main standard in our industry, containing chapters on PCM (ch. 4), MIL-STD-1553 snarfing (ch. 8), solid state storage (Ch.10), and RF standards (appendices).

iNET

Integrated Network Enhanced Telemetry. A program, led by Southwest Research Institute that is developing a standard for next-generation data acquisition systems. A key objective of iNET is to adopt open standard network-based technologies to ensure reduced costs and equipment interoperability.

Since the iNET standard is not released as of 2012, iNET-X is an expedited implementation of the iNET standard that provides the core functionality, technologies, and standards that are outlined in the iNET standard and unlikely to change in the released version of the standard. For the end user, iNET-X provides a phased, safe, and gradual transition towards network based technologies.

IP

Internet Protocol. The network layer protocol OSI stack. The IP layer provides logical IP source and destination addresses for packets that are transmitted across the network.

IP address

The address of a device attached to an IP network. Every network node must have a unique IP address for each network connection. The format of an IP (version 4) address is a 32-bit numeric address, written in dotted quad format. Each number can be zero to 255. For example, 1.160.10.240 could be an IP address. Some IP addresses are reserved. For more information, see http://www.iana.org/numbers

IPC

Institute for Printed Circuits. Class 3 is the best standard for visual inspection of assembled Printed Circuit Boards (PCBs).

IP subnet addressing

Routers, or gateways, are used to separate networks. The router breaks the network into multiple subnets. This result may seem familiar as Class A, B, and C addresses have a self-encoded or default subnet mask built in; class A network address - 255.0.0.0: class B network address - 255.255.0.0: class C network address - 255.255.255.0.

ISO 9000

ISO 9000 is a family of standards for quality management systems. ISO 9000 is maintained by ISO, the International Organization for Standardization. Adhering to an ISO 9000 standard certifies that formalized business processes are being applied.

ISHM

Integrated Systems Health Management. Similar to L/ESS.

JIRA

Curtiss-Wright's internal issue-tracker software.

KAM chassis

Consists of housing, Power Supply Units (PSU), and backplane.

kbps

KiloBits Per Second. A unit of data transfer rate equal to one thousand bits per second.

ksps

KiloSamples Per Second. One thousand samples per second.

kHz

KiloHertz. One thousand cycles per second. It is used to measure the transmission frequency of electronic devices, including channels, buses, and the computer's internal clock.

KGV-69

A chip designed to be a ‘bare bones’ encryptor for use in very high risk applications. The KGV 69 encrypts and decrypts serial data at up to 50 Mbps.

kV

KiloVolt. One thousand volts.

L/ESS

Loads and Environmental Spectra Survey. Mostly airframe strain gauges.

LLP

Low Latency Packet. LLP packets are intended for data, which needs to be sent with low latency.

LNA

Low-Noise Amplifier. An amplifier used in communication systems to amplify very weak signals.

LXI

LAN eXtensions for Instrumentation. A standard developed by the LXI Consortium. The LXI standard defines devices using open-standard LAN (Ethernet) for system inter-device communication.

mA

MilliAmpere. One thousandth of an amp.

MAC

Medium Access Control. The MAC layer adds source and destination hardware address identification to MAC frames transmitted across the Ethernet. The MAC layer also defines the protocol governing the transmission of Ethernet frames over the medium. The MAC layer of wired IEEE 802.3 Ethernet is CSMA/CD whilst the MAC layer of wireless IEEE 802.11 is CSMA/CA.

MAC address

A hardware address which uniquely identifies each node of a network. In IEEE 802 networks, the Data Link Control (DCL) layer of the OSI reference model is divided into two sublayers—the Logical Link Control (LLC) layer and the Media Access Control (MAC) layer. The MAC layer interfaces directly with the network medium. Consequently, each different type of network medium requires a different MAC layer.

Matched filter

The optimum filter required to maximise the signal-to-noise ratio in receivers. The GTS/DEC/003 uses a fully programmable digital matched filter.

Matches to lock

The number of valid sync words (1-16) required after loss before the data is considered valid.

Max

Error, including drift over temperature. Contrast with Typical.

Mbps

MegaBits Per Second. One million bits per second. (If the B is upper case, it is MegaBytes per Second—one million bytes per second.)

MBps

MegaBytes Per Second. One million bytes per second. 1 MB = 1024 kB.

MHz

MegaHertz. One million cycles per second. It is used to measure the transmission speed of electronic devices, including channels, buses, and the computer's internal clock.

MIL-STD

Military Standard. A detailed technical specification for a product that is purchased by a U.S. military agency.

Misses to loss

The number of sync words (1-16) which fail the match tolerance before data is considered invalid.

ms

MilliSecond. One thousandth of a second.

Msps

MegaSamples Per Second. One thousand samples per second.

MTBF

Mean Time Between Failures. The mean (average) time between failures of a system.

MTU

Maximum Transmission Unit. Maximum packet size allowed to be carried on the network segment. Any packet that exceeds the MTU is fragmented by the intermediate router or switch or may be discarded. Typically the MTU of an Ethernet frame is 1522B on an IEEE 802.3 100BaseTX Ethernet network segment.

mV

MilliVolt. One thousandth of a volt.

NDA (IP)

Non-Disclosure Agreement (Intellectual Properties). A legal contract, between at least two parties, that outlines confidential materials or knowledge which the parties wish to share. As part of the contract, the parties agree not to disclose information covered by the agreement.

NRE

Non-Recurring Engineering. Any task to be carried out by product development becomes an active NRE. Every active NRE culminates in a DVR.

NRZ-L

Non-Return to Zero Level. See PCM Codes.

NRZ-M

Non-Return to Zero Mark. See PCM Codes.

NRZ-S

Non-Return to Zero Space. See PCM Codes.

ns

Nano Second. One billionth of a second (1E-9 seconds).

NTP

Network Time Protocol. Internet time synchronization protocol with millisecond accuracy.

OLM

Operational Loads Monitoring. Mostly airframe strain gauges.

OSI (model)

Open System Interconnection. An ISO standard for worldwide communications that defines a framework for implementing protocols in seven layers. Control is passed from one layer to the next, starting at the application layer in one station, proceeding to the bottom layer, over the channel to the next station and back up the hierarchy.

Package

An element of XidML that describes how data is transported. For example, when starting kExcel we have to select the package (PCM format) to be loaded in SAM/DEC/00x.

PAM

Pulse Amplitude Modulation. Pulse modulation in which a voltage is sampled periodically, then transmitted as an analog signal whose amplitude is proportional to the sampled voltage. Because PAM is susceptible to transmission noise, it has been replaced by PCM in most telemetry applications. For more information, see *TEC/NOT/024, Evolution of Pulse Code modulation (PCM)*.

Parser

Primarily a Curtiss-Wright word for a bus monitor that stores whole packets in triple buffers (received, interim, and read) so that specific words from specific packets can be included coherently.

pBIT

Periodic Built-In-Test.

PCB

Printed Circuit Board. A rigid, flat board that holds chips and other electronic components. A PCB legend on a PCB indicates its part number and serial number.

PCM

Pulse Code Modulation. The primary way analog signals are converted into digital form by taking samples of the waveforms from 8 to 192 thousand times per second (8 to 192 kHz) and recording each sample as a digital number from 8 to 24 bits long.

PCM Codes

Any of several encoding schemes used to convert a parallel digital value into a serially transmitted sequence of binary code. For more information on PCM codes, see *TEC/NOT/027, IRIG 106-96 chapter 4*.

PTFR

Packet Telemetry Data Frame. See IRIG-106-17 Chapter 7.

PHM

Prognostic Health Monitoring. Like CBM, originally used for wind turbines and generators.

PHUMS

Prognostic HUMS. See HUMS.

PING

Packet Inter-Network Groper (ICMP Echo Request). An Internet utility used to determine whether a particular IP address is reachable by sending out a packet and waiting

for a response. PING is used to test and debug a network as well as see if a user or server is online.

PO

Purchase Order. Document issued by a buyer to a seller, indicating the type, quantities and agreed prices for products or services the seller will provide to the buyer.

Port

A number used, in conjunction with the IP address, to indicate one end of an Ethernet conversation. Some port numbers are reserved for particular services. The port number identifies what type of port it is. For example, a server listening for HTTP traffic listens on port 80. Port numbers range from 0 to 65536, but only port numbers 0 to 1024 are reserved for privileged services and designated as well known ports. For more information, see http://www.iana.org/numbers

PTP

Precision Time Protocol, IEEE 1588. GPS-triggered time synchronization protocol with sub-millisecond accuracy.

PPM

Parts Per Million.

Pps

Packets Per Second. The measurement of activity in a local area network.

QoS

Quality of Service. A measure of performance in a data communications system, which may comprise of one or more metrics. In networked-based systems typical QoS metrics include latency, jitter, throughput, and loss. QoS provisioning mechanisms are used to ensure that the system's performance meets the target QoS goals as defined by the relevant QoS metrics.

QPSK

Quadrature Pulse Shift Keying. A digital modulation scheme that conveys data by changing, or modulating, the phase of a reference signal (the carrier wave). See FSK.

QRRC

Quaternary Root Raised Cosine. A base-band modulation that allows almost twice the data rate as PCM/FM in the same RF band.

RAM

Random Access Memory. Memory that is 'byte addressable' and provides direct access to any location on the chip. The contents of any byte can be read or written without regard to the bytes before or after it.

RARP

Reverse ARP. A protocol that retrieves the IP address associated with a given MAC address.

Ratiometric

In electronic or electromechanical systems, it refers to the output voltage as a ratio of the supply voltage. For example, if the input voltage is doubled, the output voltage is doubled.

RCC

Range Commanders Council. The RCC is part of the U.S. Government. See IRIG.

RDAU

Remote Data Acquisition Unit.

Return code

Represents the success condition of a tool. '1' means success; '0' means failure.

RFP

Request for Proposal. Invitation for suppliers, often through a bidding process or invitation to tender, to submit a proposal on specific commodity or service.

RFQ

Request for Quotation. A process where suppliers are invited to bid on specific products or services.

ROM

Rough Order (of) Magnitude estimate. An early cost estimate used to give a rough estimate of what the project will cost to complete.

ROM

Read Only Memory. Memory that permanently stores instructions and data. Its content is created in the last masking stage of the chip manufacturing process and cannot be changed. Although EPROMs, EEPROMs, and particularly flash memory, are the kinds of non-volatile storage one hears about more often, ROM technology is mature and inexpensive.

RMA

Return Merchandise Authorization. An RMA is the official authorization from Acra that it will accept product to be returned from a customer site. An RMA is typically granted by Acra when there is a problem with a product which necessitates its return to Acra for repair, rework, or replacement. RMAs are granted by the Applications Department at Acra.

RNRZ-L

Randomized Non-Return to Zero Level. See PCM Codes.

RTP

Real-time Transport Protocol. Transport protocol running over UDP/IP, used for real-time applications.

RTSP

Real-Time Streaming Protocol. An application level protocol for controlling the delivery of data with real-time properties. RTSP is known as the Internet remote control since it provides a mechanism for users to PLAY, PAUSE, and REWIND selected streams of data. The RTSP protocol only defines how to command real-time streams, it does not define how those streams are delivered across the network.

RX

Receive. A communications abbreviation for receive. Contrast with TX.

RZ

Return to Zero. See PCM Codes.

SDRS

Structural Data Recording System. Similar to SUMS.

SHM

Structural Health Monitoring. Used for civil engineering originally (bridges, buildings) and then airplanes.

SINAD

Signal to Noise And Distortion ratio.

Snarfer

Primarily a Curtiss-Wright word for a bus monitor that stores traffic and tags (such as time) in a FIFO. For example, as per IRIG-106 chapter 8.

SNMP

Simple Network Management Protocol. A widely used network monitoring and control protocol. Data is passed from SNMP agents, which are hardware and/or software processes, reporting activity in each network device, such as a hub, router or bridge, to the workstation console used to oversee the network.

SOQPSK

Shaped Offset Quadrature Phase-Shift Keying. See QPSK.

sps

Samples Per Second.

SRAM

Static RAM. A fast memory technology that requires power to hold its content. Static RAM (SRAM, S-RAM) is used for high-speed registers, caches, and relatively small memory banks such as a frame buffer on a display adapter.

SPHM

Structural Prognostic Health Monitoring. Similar to PHM.

SSS

Smart Source Selector. A Curtiss-Wright technology where elements of link power, signal-to-noise ratio, best bit selection, and best data selection are used in diversity combining.

STP

Shielded Twisted Pair. STP is used in noisy environments where the shield around each of the wire pairs, plus an overall shield, protects against excessive electromagnetic interference. Contrast with UTP.

SUMS

Structural Usage Monitoring System. Mostly used for aerostructures/wings on airplanes.

Switch

A device that can forward Ethernet frames to their destination.

Sync word match tolerance

The number of bits (0-63) that can be incorrect and the sync word is still considered a match.

TATEM

Technologies And Techniques for new Maintenance concepts. EU study with 60 companies under framework program.

TCP

Transmission Control Protocol. A reliable transport protocol, which ensures that all data arrive accurately and 100% intact at the other end by allowing for acknowledgments and retransmissions of lost packets.

TCP/IP

Transmission Control Protocol/Internet Protocol. This de facto Unix standard is the protocol of the Internet and the global standard for communications.

TDM

Time Division Multiplexing. A process by which there is a strictly defined schedule that controls when a node can transmit on the bus.

TDMA

Time Division Multiple Access. A process by which there is a strictly defined schedule that controls when a node can transmit on the bus. Multiple nodes may access the bus.

Telemetry

The science of gathering information at some remote location and transmitting the data to a convenient location to be examined and recorded.

TFTP

Trivial File Transfer Protocol. File transfer protocol that runs over UDP/IP.

THD

Total Harmonic Distortion. A measurement of the harmonic distortion present in a signal. It is defined as the ratio of the sum of the powers of all harmonic components, to the power of the fundamental frequency.

THUMS

Engine HUMS (T=Turbo fan/shaft/jet). See HUMS.

TMATS

TeleMetry Attributes Transfer Standard. ASCII file metadata format for PCM related metadata.

TX

Transmit. A communications abbreviation for transmit. Contrast with RX.

Typical

Error at 25°C. Contrast with Max.

UDP

User Datagram Protocol. An unreliable connection-less transport protocol which doesn't provide a guarantee that packets will arrive, or that they will arrive in the order in which they were sent. UDP is widely used for streaming audio and video, voice over IP (VoIP), and videoconferencing.

UTP

Unshielded Twisted Pair. A pair of wires that are twisted around each other to minimize interference. Contrast with STP.

VDC

Volts Direct Current. Electricity whose polarity is constantly the same polarity.

VHM

Integrated Vehicle Health Monitoring. Used for NASA space vehicles originally. Relies on extensive network of sensors built into the vehicle.

Viterbi Equalization

A method of taking advantage of known inter-symbol interference inherent in some modulation schemes such as PCM/FM to improve bit error rate.

VHUMS

Vehicle HUMS. See HUMS.

VL

A Virtual Link defines a preconfigured unidirectional connection from one end system to one or more destination end systems in an ARINC 664 Part 7 network.

VLAN

Virtual Local Area Network (Ethernet). A logical subgroup within a local area network that is created via software rather than manually moving cables in the wiring closet.

V_{rms}

Volts Root-Mean-Square. The root-mean-square (rms) voltage of a sinusoidal source of an electromotive force:

V_{rms} is used to characterize the source. It is the square root of the time average of the voltage squared.

V_{p-p}

Volts Peak-to-Peak. The difference between the largest voltage in the signal and the lowest voltage in the signal.

WLAN

Wireless Local Area Network (IEEE 802.11). A local area network that transmits over the air typically in the 2.4GHz or 5GHz unlicensed frequency band.

XdefML

XidML Definition Markup Language. A published (on www.xidml.org) validation schema that can optionally be used in conjunction with XidML to allow vendors to specify constraints for their XidML instrument definitions.

Xid

eXtensible Instrumentation Definition. Old metadata standard, now replaced by XidML.

XidML

eXtensible Instrumentation Metadata exchange Mark-up Language. A published metadata schema for how telemetry systems are configured. XidML supersedes XID and Curtiss-Wright's XML. It includes hardware, packet, and processing setup information.

XHUMS

Experimental HUMS. See HUMS.

X-Tools

Versions of some of Curtiss-Wright's software tools, such as X-Setup, X-Report, X-Translate, and X-Validate; introduced in an attempt to popularize XidML.