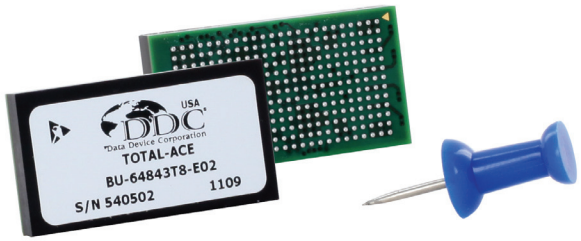
Total-ACE®
Complete MIL-STD-1553 Solution

Connectivity Power Control

Product Brief

Model: BU-6X8X3T/U/H/i8



Save board space and simplify your 1553 design and layout with the world's first fully integrated MIL-STD-1553 component, complete with 1553 protocol, memory, transceivers, and isolation transformers—all in one small plastic BGA package with direct and/or transformer coupled 1553 connections inside.

Key Features

Performance
- Ultra Low Power

Functionality
- 1 Dual Redundant MIL-STD-1553 Channel
  - BC, RT, MT or RT/MT Functionality
  - Direct and/or Transformer Coupled
  - Supports MIL-STD-1553 A/B & MIL-STD-1760
  - 4K x 16 or 64K x 16 RAM
  - Tx Inhibit Ball for MT Only Applications
  - BC Disable Ball for RT Only Applications
  - External RT Address Inputs
  - MIL-STD-1760 RT Auto Boot
  - Simple System RT Mode
- Autonomous Built-In Self-Test
- 3.3 Volt Only Operation
- DO-254 Certifiable

Environmental
- Military Temperature Range: -55°C to +125°C Operation

Mechanicals
- Small 312 Ball BGA Package:
  - Transformer-Coupled Component (0.6" x 1.1") (15.2 mm x 27.9 mm)
  - Direct & Transformer-Coupled Component (0.7" x 1.1")(17.8 mm x 27.9 mm)
  - 0.185" (4.7 mm) Max Height
- Leaded and RoHS Versions Available

Software
- High-Level C Software Development Kits with Sample Code for Windows®, Linux®, and VxWorks®
- Graphical Interface to Generate Application C Code

Benefits

- Small Size Saves Board Space
- Simplified Board Design with Single Package System
- Single Part Provides Increased Reliability
- Field Proven & Reliable Technology with over 62 Million Hours of In-Service History
- Qualified and RT Validated to Simplify Qualification
- Lower Total Cost of Ownership
- Software Compatible with ACE, Mini-ACE®, Enhanced Mini-ACE®, Micro-ACE®, and Mini-ACE® Mark3 Series

Applications

- Mission Computers
- Digital Data Recorders
- LRU's
- Displays
- Radios/Modems
- Radar Systems/Situational Awareness
- Ground Vehicles
- Commercial Aerospace

Quick Specs

TOTAL POWER DISSIPATION	MIN	TYP	MAX
Idle	-	0.170 W	-
25% Transmitter Duty Cycle	-	0.273 W	-
100% Transmitter Duty Cycle	-	0.514 W	-

THERMAL	MIN	TYP	MAX
Operating Temperature	-55 °C	-	+125 °C
Storage Temperature	-65 °C	-	+150 °C

For more information: www.ddc-web.com/BU-64843T

Ordering Information

BU-6X8X3X8-X02

- **E** = -40°C to +100°C
  1 = -55°C to +125°C
- **T** = Leaded Transformer Coupled
  U = RoHS Transformer Coupled
  H = Leaded Direct & Transformer Coupled
  i = RoHS Direct & Transformer Coupled
- **4** = 4K Word RAM
  6 = 64K Word RAM
- **4** = Microprocessor Interface
  5 = PCI Interface

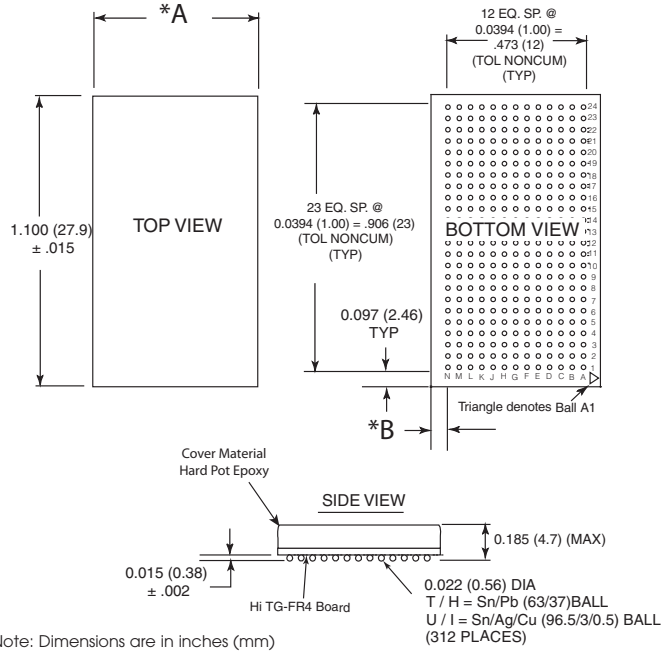
Included Software:

- 1553 C Software Development Kit (SDK)
- Windows®, Linux, and VxWorks support

***Mechanical Outline Dimensional Information:**

PART NUMBER	A	B
BU-6x8x3T(U)8	0.600 (15.2) ± .015	0.064 (1.63) TYP
BU-6x8x3H(I)8	0.700 (17.8) ± .015	0.114 (2.89) TYP

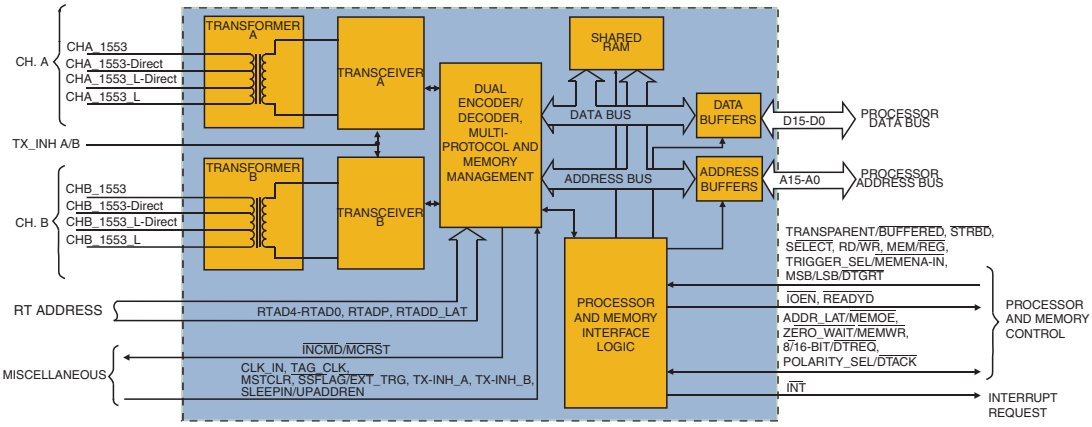
Mechanical Outline



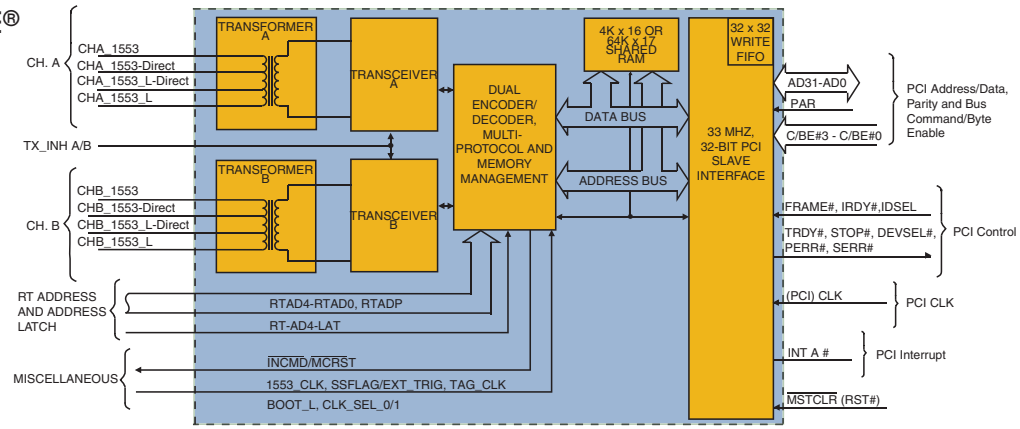
Note: Dimensions are in inches (mm)

Block Diagrams

Total-ACE®



PCI Total-ACE®



DATA DEVICE CORPORATION
REGISTERED TO:
ISO 9001:2008, AS9100C:2009-01
EN9100:2009, JIS Q9100:2009
FILE NO. 10001296 ASH09

For ordering assistance and technical support,

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