

www.caen.it



CAEN

Tools for Discovery



ESO Industry day
June 2012

CAEN Network's Companies



- Founded in 1979
- 80 people
- Headquarters and main operation unit in **Viareggio**, Italy; operation unit in Elba Island
- Core business: Electronic Instrumentation for Physics experiments (world leader)
- Spin-off activities: Microelectronics-Aerospace (1995), RFID (2003)

Global coverage

- Worldwide sales network
 - CAEN offices in Italy, Germany, USA,
 - Agents in more than 30 countries
- Portfolio: 1000 customers
- Includes world leading research centres
 - Europe: CERN, INFN, GSI, ESO, ISIS, Ganil, PSI, ...
 - USA: FNAL, SLAC, Los Alamos, BNL, JLab, ...
 - Asia: J-Park, KEK, Riken, IHEP, TIFR, ...
 - Africa: iThemba Labs, ...

Market

- For 30 years CAEN has been providing Scientists and Engineers with the most advanced electronic instrumentation for any particle or radiation detectors
- Strong of an extremely close collaboration with the world major research laboratories CAEN is proud to produce the best tools for:
 - High Energy Physics
 - Astrophysics
 - Neutrino Physics
 - Dark Matter Investigation
 - Nuclear Physics
 - Material Science
 - Medical Applications
 - Homeland Security
 - Industrial Applications
 - and more ...





Products



- Power Supply
 - High Voltage and Low Voltage Systems
 - Multichannel NIM, VME and Desktop HV Modules
- Signal Conditioning & Read-out Electronics
 - Preamplifiers, Digitizers, TDC, Logic, ...
 - VME, CAMAC, PCI/PCI-Express, NIM and Desktop Front-End/Data Acquisition Modules
 - Digital Pulse Processing
- Powered Crates
 - Low Ripple Linear NIM powered Crates
 - New Hi-End VME64/VME64x Crates
- Custom Developments



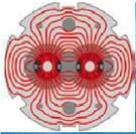
Products

- More than 250 products in the catalogue



- Custom developments up to 40% of CAEN production (not included in the catalogue)





CAEN & LHC Experiments

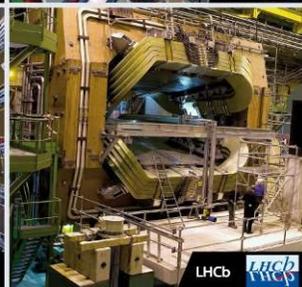


1998 – 2008

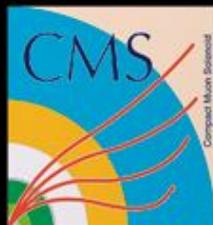
SYNERGY for SUCCESS

10 years of joint efforts to achieve top performances

- 6.500 electronic units delivered
 - 190.000 sub-boards
- Designed for Hostile Environments
 - Magnetic Field resistant (up to 5000 Gauss)
 - Radiation tolerant
- Experiments:
 - CMS; ATLAS; ALICE; LHC-B; TOTEM



**The CMS Award
2009**



CAEN is honoured and proud to announce that was awarded with the highest tribute from the CMS collaboration, the

CMS Crystal Award of the Year 2009

The award honours companies which have made outstanding contributions to the construction of the CMS experiment and seals the successful synergy between CAEN and the CERN projects over the past years.

CAEN SpA was honoured with the "CMS Crystal Award" for the achievements in the realisation of the contracts for the CMS Detector, including the modules powering the largest silicon detector ever built. The important acknowledgement recognizes the company's design and manufacturing capabilities achieved in the quality of the delivered products.

CAEN
Tools for Discovery

CAEN and ESO LV Power Supply for ALMA



- Design of custom LV Power Supply System for ALMA
- 8 different voltage channels per System
- 86 Systems produced
- Linear Power Supply
- Very low ripple/noise performance
- Harsh environmental condition (desert at 5,000 m altitude)
 - high reliability
 - simplified maintenance
 - requirements for vibration, shocks, transportation, earthquake, air pressure, dust

CAEN and ESO LV Power Supply for ALMA



Photo courtesy of ALMA



- Tender awarded on May 2009
- First prototypes on July 2009
- Mass production started on December 2009
- Delivery of 73 Systems completed on August 2010
- Additional order of 13 Systems completed in October 2010

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Thank you very much for your kind attention



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