

Company History

Hitachi-Comark has been in the broadcast industry since 1972. As such we have participated in the UHF expansion of the 1980's, the original analog to digital conversion, as well as numerous projects internationally. The timeline below details major accomplishments of the company. We have also included some information / cast studies of key projects that Hitachi-Comark participated in.

2022:

- COMARK's EC700HP-BB3 Transmitter series wins Best of Show award, presented by TV Technology
- COMARK announces improved E-Compact High-Power Air-Cooled Transmitters at NAB-2022

2020:

- PARALLAX® All-In-One Transmitter for Non-Repack and NextGen TV introduced by COMARK
- COMARK announces the EC702MP-BB3, EC704MP-BB3 , EC705LP-AT1, and EC720LP-AT1 Air-Cooled Transmitters
- COMARK and VideoFlow have partnered to provide ATSC 1.0 and 3.0 solutions

2019:

- COMARK's EC710MP-BB air cooled transmitter wins future's Best of Show Award, presented by TV Technology
- Phoenix Model Market Single Frequency Network Transmissions to begin with an ATSC 3.0 SFN System from COMARK
- COMARK introduces outdoor tower mount SFN ATSC 3.0 transmitter
- COMARK and Triveni Digital announce reseller agreement for ATSC 1.0 and 3.0 solutions

2018:

- COMARK wins NewBay's Best of Show Award, presented by TV Technology
- WGBH / WBGY orders VHF transmitters for repack from COMARK
- Maryland Public Television orders 75kW PARALLAX UHF DTV transmitter from COMARK
- COMARK releases PARALLAX VHF band 1 Transmitter for Spectrum Repack and ATSC 3.0
- Bahakel Communications, Ltd. signs repack master purchase agreement with COMARK
- COMARK and Ateame announce partnership agreement for ATSC 1.0 and 3.0 encoding solutions

2017:

- WCTE Orders New PARALLAX DTV Transmitter from COMARK
- Meredith Orders Repack Transmitters from COMARK
- COMARK announces the "Repack Optimized" E-Compact Air Cooled Transmitter family at NAB-2017
- COMARK teleases EXACT-V2 IP Optimized DTV Exciter

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- COMARK releases EXACT-V2 IP Optimized DTV Exciter
- COMARK Transmitter with TeamCast exciter ready for ATSC 3.0 Field-tests in Cleveland
- COMARK announces a live glass-to-glass ATSC 3.0 demonstration at NAB
- COMARK Releases PARALLAX™ Doherty VHF Transmitter for Spectrum repack and ATSC 3.0

2016:

- COMARK wins NewBay Media's Best of Show Award, presented by TV Technology
- COMARK presents the E-Compact DOHERTY Air Cooled Transmitter Family at NAB-2016
- COMARK releases PARALLAX™ Wideband Doherty UHF Transmitter for Spectrum repack and ATSC

2015:

- Samsung Electronics Co. Ltd., COMARK and TeamCast demonstrate the world's first Terrestrial Broadcast of full ATSC 3.0 technology at CES 2015, showing over the air reception of MPEG-H HEVC Ultra HD video and MPEG-H 3D audio content
- NAB-2015: COMARK introduces PARALLAX™—the industry's next generation medium and high power, liquid cooled, high efficiency solid state transmitter. It delivers an industry best of up to 27.5kW, stacked in a single rack cabinet
- NAB-2015: COMARK introduces the E-Compact series of high efficiency air cooled solid state UHF DTV transmitters. The E-Compact is available to support most worldwide DTV standards including ATSC, DVB, and ISDB-T
- ONE Media, COMARK and TeamCast join efforts for an end-to-end live demonstration of ATSC 3.0 technology at the NAB Show 2015

2014:

- COMARK invests into Comark Communications LLC accelerating efforts to increase its global market share of broadcasting equipment, aiming to be one of the world's leading providers of video and wireless network solutions
- COMARK introduces QoS-1000; a cost effective solution for Quality of Service monitoring of any transmitter RF output

2013:

- COMARK received an order from MNC Group (PT. Media Nusantara Citra Tbk) for a new DCX Paragon MSDC-IOT digital TV transmission system used to launch new DVB-T2 service for Global TV's free-to-air channel in Surabaya, Indonesia
- COMARK introduces the MPTV-8000 Medium Power TV series of solid state DTV transmitters. The MPTV-8000 solid state transmitters utilize DOHERTY amplifier technology along with the latest 50VDC LDMOS devices
- COMARK introduces the CMX-5000 MPEG-2 digital TV encoder and multiplexer. The CMX-5000 is an integrated platform but is also very flexible. The unit can be configured to accommodate several different encoding needs.

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2012:

- Management buyout of the company and name changed from Thomson Broadcast, LLC to Comark Communications LLC
- COMARK launches the all new LPTV-8000 low power product line and ATSC-8000 advanced high performance digital TV exciter at the NAB show
- KQED Public Television, one of the nation's most-watched public television stations during primetime purchases a DCX Paragon two-tube 38kW DTV transmitter for its transmitter facility on Mt. Sutro, CA

2011:

- Indosiar, one of Indonesia's top three broadcasters, ordered six new Thomson Inductive Output Tube (IOT) high-power transmission systems for its national television network.
- WMBC-TV successfully deployed an ATSC single-frequency network (SFN) from Thomson to improve its coverage in New Jersey and New York City.
- Brookhaven National Laboratory selected Thomson to supply technology for its NSLS-II Project in Long Island, N.Y.
- Thomson Supplies ATSC Mobile DTV System to WGCL-TV in Atlanta

2010:

- Boston's WGBH Broadcasts Region's First ATSC Mobile Video Service with Thomson Platform
- Thomson Supplies Transmission System FOX Charlotte - WCCB for Mobile DTV Broadcasting
- Arqiva Selects Thomson to Support New DVB-T2 Network in the U.K.

2009:

- Thomson completes factory acceptance testing and begins delivery of first DCX Paragon transmitters for the digital switch-over in UK

2008:

- US Broadcaster Trinity Upgrades Networks with Thomson's DCX Millennium Digital Transmitters

2007:

- Thomson Delivers Transmitters for MediaFLO USA Mobile DTV Rollout
- Thomson selected for Modeo's DVB-H headend system for mobility deployment at their Pittsburgh, PA Network Operations Center (NOC)
- Thomson in Multi-Million Dollar Deal to Supply Transmitters for UK Digital Switchover, Arqiva(UK Reseller) orders 39 DCX Paragon 1+1 DVB-T transmitter systems

2006:

- Lockheed Martin orders 2nd 400 MHz UHF IOT based SIIA from Thomson

2005:

- WGBH upgrades existing IOT DTV Tx with Thomson DCX Paragon high efficiency IOT
- Crown Castle Orders Thomson's DVB-H Transmitter Systems for Mobile TV Deployment
- Cornell University orders 1.3GHz IOT based Scientific Industrial IOT Amplifier (SIIA) from Thomson
- Thomson supplies UHF IOT SIIA to Danfysik, Denmark for the Australian Synchrotron Project

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2004:

- Thomson unveils ADAPT-IV, Latest Generation Exciter for Digital Transmitters
- World on Wireless Limited Selects Thomson for Pay-TV Deployment in Bermuda, includes AFFINITY 200-watt average power digital solid-state UHF transmitters with integrated DVB-T modulators in a 19:1 active reserve configuration including all necessary RF combining and switching systems.
- Lockheed Martin orders 400 MHz UHF IOT based Scientific Industrial IOT Amplifiers (SIIA) from Thomson for high power RF component testing
- Thomson supplies UHF IOT SIIA to Diamond Light Source, UK's national synchrotron science facility, located at the Harwell Science and Innovation Campus in Oxfordshire, England

2003:

- Thomson wins 3rd Emmy Award for the pioneering development of Digital Modular Adaptive Precorrection (DAP™) for ATSC 8VSB Digital Transmitter Systems
- Thomson awarded patent for oil cooling of MSDC-IOT amplifier. Patent # 6,601,641
- Thomson awarded patent for a method to protect an IOT amplifier from stored energy in a linear High Voltage Power Supply (HVPS) without the use of a crowbar circuit. This patent covers the company's SoftArc Technology (SAT), which is incorporated in the DCX Paragon. Patent # 6,724,153
- Brookhaven National Labs orders UHF IOT based Scientific Industrial IOT Amplifier (SIIA) from Thomson

2002:

- Thomson debuts the DCX PARAGON™ MSDC IOT transmitter, Revolutionary MSDC IOT technology premieres at NAB 2002

2001:

- New York Public Broadcasting Stations sign with Thomson for digital rollout. Products included in the sale are Thomson DCX MILLENNIUM, ULTIMATE, and IOX transmitters
- Thomson introduces AFFINITY digital low power transmitter, Unit offers proven design and cost savings

2000:

- Raycom Media selects Thomson for digital transmission, purchase includes ULTIMATE solid-state transmission system
- The DCX Millennium transmitter debuts at NAB 2000

1999:

- Thomson wins a 2nd Emmy Award for technical achievement for MPEG analysis system

1998:

- WKOW-DT is the first station in the US to go "on-air" with full power DTV "N+1" configuration with transmitters supplied by Thomson
- Thomson, LIN Television's KXAS, and NBC work together to air live HDTV content in the form of a Texas Rangers baseball game, made possible by Thomson's digital transmitter

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1997:

- Fox Television Group and Thomson sign DTV agreement
- Thomson Signs DTV agreement with PBS station WGBH
- Thomson and LIN Television sign DTV agreement

1996:

- COMARK launches the first IOT transmitter specifically designed for digital at NAB '96
- COMARK and Ion Media (formerly Paxson Broadcasting) reach strategic DTV agreement
- COMARK and NBC sign strategic agreement to provide HDTV services to NBC owned and operated stations
- Thomson is selected to supply IOX digital transmitter for WHD-TV, the nation's model HDTV station project

1995:

- Successful completion of North Carolina field test project with COMARK IOT transmitters
- National Institute of Standards and Technology (NIST) granted matching funds to support a joint venture led by the David Sarnoff Research Center which included COMARK to develop critical technologies needed to enable production and delivery of HDTV

1994:

- First COMARK domestic IOX transmitter "on-air" at WABU-TV 68 in Boston, MA

1993:

- COMARK introduced the 3rd generation "IOX" transmitter line at NAB '93 supporting both NTSC and future HDTV for "DUAL USE"
- Delivered the first COMARK IOX transmitter with dual carrier NICAM sound in common amplification to the Finnish Broadcasting Company
- U.S. patent awarded to COMARK for aural carrier corrector. Patent # 5,198,904

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- COMARK and NBC sign strategic agreement to provide HDTV services to NBC owned and operated stations
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1990:

- COMARK receives an Emmy Award from the National Academy of Television Arts and Sciences (NATAS) for the development of the Klystrode tube and transmitter

1988:

- First COMARK Klystrode IOT transmitter placed into full time broadcast service at WCES-TV

1987:

- COMARK launched production of the Klystrode IOT based transmitter

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1986:

- COMARK introduced the 2nd generation “S” series Klystrode IOT based amplifier at NAB ‘86, significantly increasing UHF tube based amplifier efficiency over klystrons

1981:

- Comark Communications delivers first klystron transmitter system designed around 55kW wide band klystron from E2V, fully broadband amplifier for UHF television

1978: Comark Communications based in Westfield, MA established first High Power UHF transmitter designed around E2V external cavity klystron yielding the highest efficiency of any UHF transmitter system to date