



**ARMSTEL**



This is the ONE...

**ARMSTEL, Inc.**

12th Floor • 2435 North Central Expressway • Richardson, TX 75080

ph: 972.231.8793 | [www.armstel.com](http://www.armstel.com)



## ARMSTEL Vision

ARMSTEL envisions pioneering the most cost effective and advanced imaging presentation technology in medical imaging and communication, empowered by world-leading innovations in image processing and network telecommunication technology. ARMSTEL's technologies and solutions will make it possible to provide global teleradiology and telemedicine - wired or wireless - on the concept of staying connected anytime, anywhere, at the lowest possible cost.

# About ARMSTEL

ARMSTEL, based in Dallas, Texas is a medical electronics and system solution company that provides the most cost effective medical image presentation and communication devices, with its world leading innovations and technologies. Our mission is to help medical facilities, hospitals and individual doctors face the challenges of today's increasingly complex digital medical diagnostic system communication environment, and to make global teleradiology possible. We are uniquely positioned to provide medical users and

agents with innovative and economical end-user medical and clinical diagnostic devices. We also aim to provide IMS-based network teleradiology solutions, and to deliver NEMA DICOM compliant PACS medical image presentation and communication technology. With our highest customer commitment and dedication to excellence in technology and innovation, ARMSTEL is striving to deliver the most delicate and cost effective medical imaging presentation and network solutions to our customers, to exceed their expectations.

## Our RESEARCH & DEVELOPMENT

Partnered with DICOM experts and hospital radiologists, ARMSTEL has established a strong R&D team in Dallas that is dedicated to conducting research and development in medical image processing technology innovations. The R&D team has already invented a series of patented technologies in the area of grayscale imaging presentation, color channel encoding and gamma calibrations. With a strong hardware development capability, ARMSTEL R&D has already developed a series of sample machines for prototyping different invented algorithms and methods. ARMSTEL R&D will continue to play a central role in technology innovation and development as a global technical center.

With a global reach in China, ARMSTEL has also established a joint R&D force in Hangzhou, Zhejiang province, to expand its research and development closer to the China customer base.

### Our Software Design Team

ARMSTEL has a globally structured software development team, integrated with the R&D resources from one of the top universities in China. The team has high-end software and system design engineers with experience in network communication, telecommunication, international communication software design and development, and telecommunication standards.



### Our Hardware Design Team

The hardware design team for ARMSTEL has a combined total of more than three decades of experience in PCB, ASIC chipset design and development experience. They provide the most advanced and highest standard of quality implementation of hardware and firmware for medical electronic devices. They also handle PCB hardware design and layout, sophisticated FPGA, MCU firmware design, prototyping, debugging, productizing, and testing.



### Our Telecommunication and System Design Team

The telecommunication and system design team at ARMSTEL is headed by architects and leaders from Fortune 500 telecommunication companies. They are developing the Amedicom Medical Gateway (MGW) server to provide the interconnection between a PACS system and telecommunication networks via IP connections. They are to provide add-on PACS services over the telecommunication network for subscribers.



# Our PRODUCTS

Our portfolio is the result of our extensive experience in the medical imaging and telecommunication sectors, including close relationships with customers. It is based on a strong commitment to research and development, as well as medical industry-wide standards, and addresses customers' business and technology demands.

## This is the ONE...

### The ARMSTEL AMEDICOM® PACS QC:

- A Windows-based software program used to check the quality of medical displays
- Provides an interactive medical display diagnosis
- Generates a test log after each test for historical records
- Provides an intuitive view on the status of DICOM compliancy
- Available for download from our website



### The 1st Generation AMEDICOM ARMSATT Medical LCD Display

ARMSTEL Amedicom terminal device is a 21.6" new LCD NEMA DICOM PS 3.14-2009 specification compliant end user monitoring device with dual functional display. The ARMSTEL Amedicom series dual-functional LCD monitor can be used as a regular high-end color computer LCD monitor, and a DICOM specification compliant grayscale medical display, at a fraction of regular DICOM medical LCD monitor's cost. This is achieved by applying ARMSTEL's invention, a world leading breakthrough technology, ARMSTEL ARMSATT®, to realize 11-bit grayscale display (2048 grayscale levels) on a regular commercial LCD 8-bit color monitor. ARMSTEL Amedicom medical LCD display also comes with:



- An ARMSTEL dedicated lux meter with a USB connector to plug into the computer for calibration and,
- Amedicom Calibrator, a sophisticated 11-bit (2048 levels of grayscale) DICOM calibration tool to adjust the Barten's characteristic curve at different levels of accuracy. The software can be downloaded from the company website for free.

***With the lux meter and Calibrator, the end user can easily calibrate the AMEDICOM medical LCD display any time they want.***

## AMEDICOM MDA 2121 21.6" DUAL-MODE 2 MP 11-BIT MEDICAL LCD DISPLAY:

- ARMSTEL's Patented Medical Display Technology (ARMSATT)
- DICOM Calibration with 11-Bit Grayscale Accuracy (2048 Grayscale Levels)
- User Friendly DICOM Calibration Software and Lux Meter
- Easily Switch Between Normal Color and DICOM Medical Display Modes
- Rotates 90 Degrees for Landscape/Portrait Viewing
- 360 Degree Swivel Base
- Best AMD TFT 2 MP (1920x1080)
- 300-500 cd/m<sup>2</sup> Brightness and High Contrast
- 2 Megapixel Resolution
- 11-bit LUT Calibration
- DICOM GSDF Support
- Single Button Push Dual-mode Function
- LCD Panel : Color Monitor
- TYPE: TFT Active Matrix
- Active Display Area: 466.9x292.6mm.
- Pixel Pitch(HxV) : 0.248\*0.248mm
- Interface: VGA, DVI, USB
- Active Screen Size : 21.6" Diagonal
- Native Resolution : 1920x1080
- Viewing Angle(H,V) (Typical) : 170H<sup>∞</sup> , 160V<sup>∞</sup>
- Brightness Max. : 500 cd/m<sup>2</sup>
- Brightness (Calibrated): 400 cd/m<sup>2</sup>
- Contrast Ratio: 300:1 ~ 1,000:1
- Gradation Display : 11-bit ( LUT)
- Calibration (Standard): DICOM Part 14
- Calibration Port: USB
- Calibration Tools: ARMSTEL Lux Meter and ARMSTEL Calibration Software Package (included)
- Input Grayscale Resolution: 8-bit/10-bit\*/11-bit\*
- \* Requires ARMSTEL Viewer Application



## The 2nd Generation AMEDICOM ARMSATT Medical LCD Display:

- 24" high luminance diagnostic display with FDA 510k clearance
- A self-DICOM adjustable display with a built-in luminance detector
- Provides a self-tuning algorithm and backlight stabilization
- Serves as an 11-Bit DICOM calibrated diagnostic 2MP dual-functional LCD display
- Diagnostic function serves as a 10-Bit display (using ARMSTEL Viewer) with 11-Bit DICOM calibrations

## The ARMSTEL MEDICOM Gateway Server:

- A DICOM compliant NGN IMS exchange server for medical networks
- Allows medical networks to intercommunicate with PSTN for remote teleradiology and telemedicine solutions
- Provides interoperability between PACS systems and PSTN networks
- Provides add-on teleradiology and telemedicine services via telecommunication networks
- Allows patient and business sensitive information to be shared among doctors, hospitals and patients in a secure manner



# Our COMPANY



## ARMSTEL Headquarters in North America

ARMSTEL headquarters in North America, located in Richardson, Texas, is the global R&D and business center. With highly professional engineers and business resources, our headquarters not only maintain the global operations of the business and R&D, but is also dedicated to the core technology innovations and developments. ARMSTEL headquarters consolidates and leverages all the inventions and innovations from our global resources to build a world leading medical imaging processing and telecommunication company in the US.



## ARMSTEL R&D Center in Hangzhou, China

Teamed with key resources from the Biomedical Equipment and Engineering Department of one of the most prominent Universities in China, ARMSTEL has been working closely with local engineers in Hangzhou, in the area of PACS systems and quality assurance. The PACS QC over the network monitoring and checking project is pioneered by the R&D efforts in China. The research and development center in Hangzhou is to work closely with local hospital staffs and engineers to design and deliver the most cost effective and technologically advanced PACS QC network monitoring and checking solutions to China hospitals. With the necessary calibrations, ARMSTEL R&D in Hangzhou is to provide ARMSTEL with a base global PACS QC network solution to be deployed worldwide in the near future.



## ARMSTEL China Corp in Beijing, China

ARMSTEL China Corp, located in Beijing, China, is the headquarters of ARMSTEL in China for the Asia Pacific region. ARMSTEL China leads the local marketing and sales in China and the Asia Pacific region. It also provides the technical support and leads the R&D in the area of medical imaging add-on services via telecommunication networks. It coordinates all the functions and activities in China, including the Hangzhou R&D lab, contracted manufacturers, and investors. It also engages in public relations with the local and national governments and ensures that products are compliant with all Chinese regulations and standards.



## Contracted Manufacturers

ARMSTEL is working closely with contracted manufacturers in China to produce the most cost effective products, while remaining compliant with international standards. ARMSTEL has completed two joint research and development projects with two contracted manufacturers in Shenzhen, China, and started mass production. The contracted manufacturers have proven their competence in delivering high quality products for ARMSTEL in the shortest time and at the lowest cost. We have established a tight relationship and supply chain with these contracted manufacturers, who have not only advanced our production lines in China, but the strong R&D capabilities as well.



## Our Network

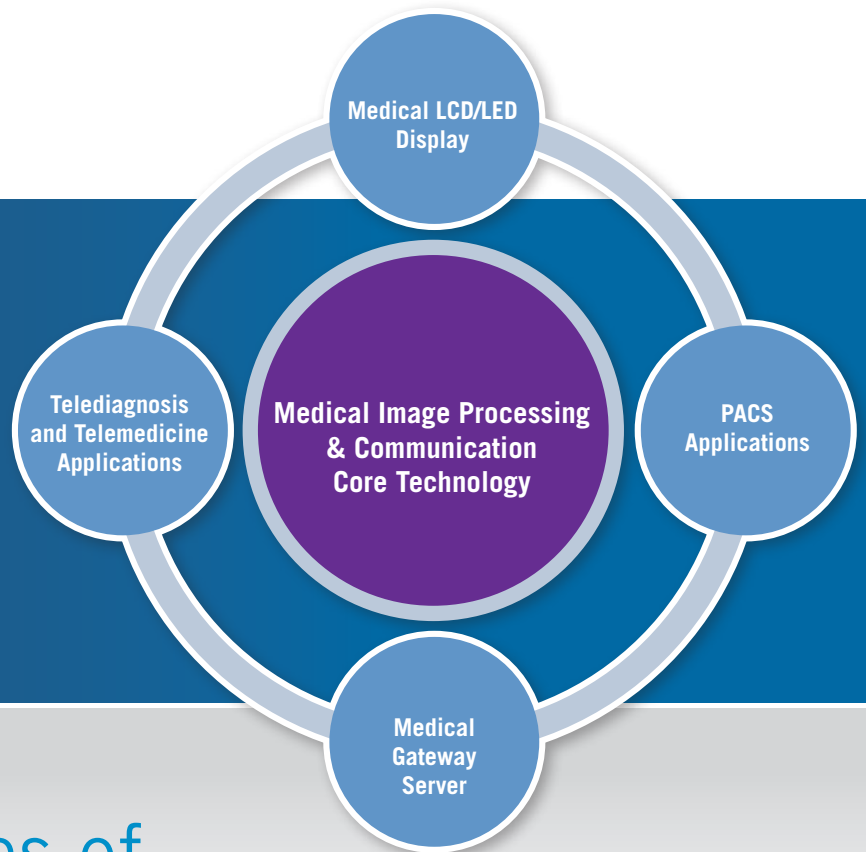
In order to provide the most advanced technology in the area of medical image processing and presentation, ARMSTEL has worked to establish close relationships within the medical technology industry. For instance, we work closely with UT Southwest Medical Center, Medical QC Images, LLC, Otech, Inc, etc.

For product hospital trials and expert assessment, and for FDA 510k clearance, ARMSTEL has established working relationships with UT Southwest Medical Center and Baylor Hospital in the United States, and Zhejiang Hospital and Beijing Xiehe Hospital in China.

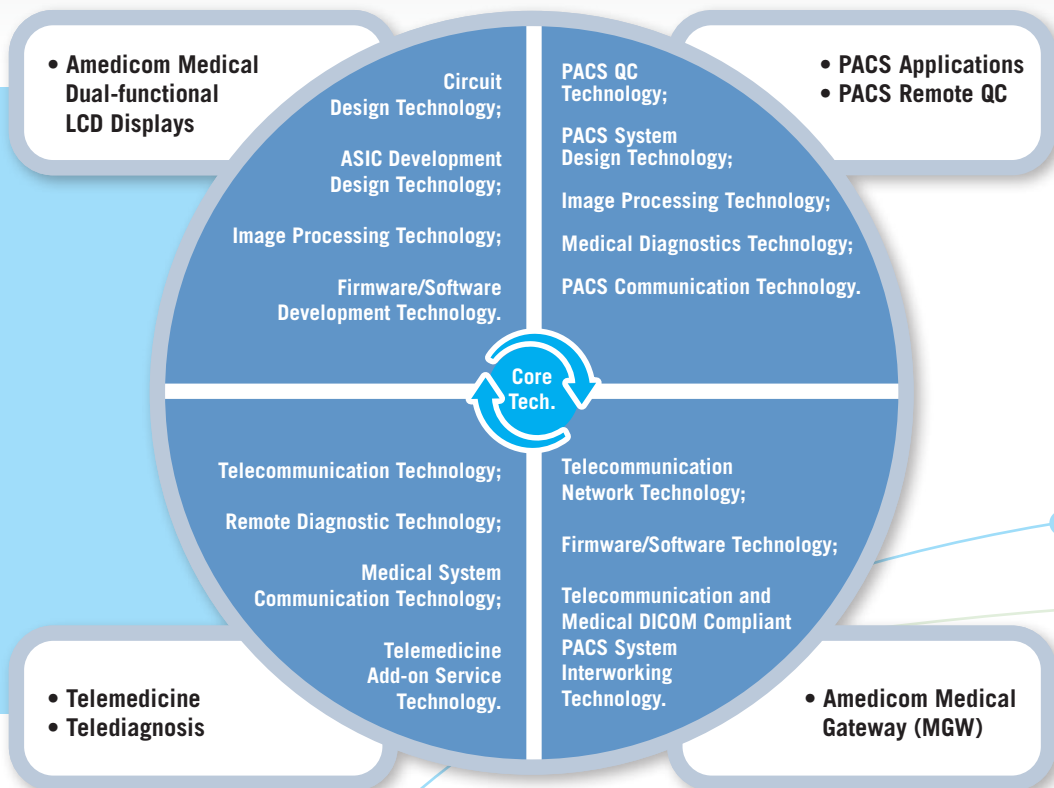
To provide the most accurate and up-to-date products and solutions, and to guarantee their interoperability, ARMSTEL is working with government organizations and consulting agencies, to ensure that our products and deliverables are all international standard compliant.

# The ARMSTEL BUSINESS Model:

ARMSTEL's core technology innovations are patented in the United States and are the basis for all of our business offerings. Application technologies for each line of business target various markets. All the technologies are controlled by the Board of Directors and executed by the management of each line of business.



## Here's how the lines of business are managed at ARMSTEL:





**ARMSTEL**

## Our FUTURE

Today we are uniquely positioned to provide medical users and agents with innovative and economical end-user equipment. We are poised to be the major PACS end-to-end terminal and service solution provider over telecommunication networks, including wired and wireless networks. We are also to provide IMS-based network equipment to deliver NEMA DICOM compliant PACS communication network solutions. It makes medical diagnosis connected anytime, anywhere, at the lowest cost possible.

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