

# TETRA Terminals: Market Research Report

<https://marketpublishers.com/r/T5D7E7964DEEN.html>

Date: December 2018

Pages: 144

Price: US\$ 5,450.00 (Single User License)

ID: T5D7E7964DEEN

## Abstracts

This report analyzes the worldwide markets for TETRA Terminals in Units. The Global market is further analyzed by the following End-Use Industries: Transport, Public Safety, Utilities, and Others. The report provides separate comprehensive analytics for the US, Canada, Europe, Asia-Pacific, Middle East & Africa, and Latin America.

Annual estimates and forecasts are provided for the period 2015 through 2022. Market data and analytics are derived from primary and secondary research.

Company profiles are primarily based on public domain information including company URLs.

The report profiles 23 companies including many key and niche players such as -

Airbus Defence and Space

Cobham plc

DAMM Cellular Systems A/S

ETELM

Hytera Communications Corporation Ltd.

Motorola Solutions, Inc.

## Contents

### 1. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS

Study Reliability and Reporting Limitations  
Data Interpretation & Reporting Level  
Quantitative Techniques & Analytics  
Product Definition and Scope of Study

### 2. INDUSTRY OVERVIEW

Terrestrial Trunked Radio (TETRA): An Introductory Prelude  
Growing Importance of Critical Communication in Emergency, Public Safety & Enterprise Applications Fuels TETRA Deployments  
Evolution of TETRA Standards from TETRA 1 to TEDS and to TETRA 3 Steers Market Expansion  
Establishing TETRA PMR Standards at par with CMR Standards: The Game Changer for TETRA Technology  
Evolutionary Pathway of CMR & PMR Critical Communication Technologies  
Operator Adoption of TETRA 2 Essential for Laying a Strong Foundation for TETRA  
Future Prospects Remain Favorable for TETRA Terminals Market  
Europe Dominates the Market, Middle East & Africa to Set the Momentum

**Table 1.** Europe Accounts for over 2/5th Share of World TETRA Terminals Market: Percentage Breakdown of Shipments for Europe and Rest of World (2018E & 2022P) (includes corresponding Graph/Chart)

**Table 2.** World TETRA Terminals Market - Geographic Regions Ranked by CAGR (Shipments) for 2015-2022: Middle East & Africa, USA, Asia-Pacific, Latin America, Canada and Europe (includes corresponding Graph/Chart)

Favorable Macro Scenario to Aid Market Expansion

**Table 3.** World Real GDP Growth Rates in % (2017-2019): Breakdown by Country/Region (includes corresponding Graph/Chart)

**Table 4.** Global Manufacturing Purchasing Managers' Index (PMI) for the Years 2010

through H1 2018 (includes corresponding Graph/Chart)

### **3. GROWTH DRIVERS, MARKET TRENDS & ISSUES**

Rising Need for Convenient & Secure Communications Provides Fertile Environment for Mobile Radio Technologies

**Table 5.** Global Professional Mobile Radio (PMR) Market (2013 & 2017): Percentage Share Breakdown of Number of Installed Units by Category (includes corresponding Graph/Chart)

Growing Applications in Public Safety & Commercial Verticals Drive Growth  
TETRA Supported Data Applications Gain Traction Among Public Safety Organizations  
Data Applications Supported by Various Commercial Mobile Radio and TETRA PMR Standards

Major Data Applications for Critical Communications Users Ranked in Descending Order of Demand

Growing Emphasis on Disaster Management & Emergency Response Drives Demand  
Rapid Shift from Analog to Digital Radio Triggers Robust Growth Opportunities

**Table 6.** Global Private Mobile Radio Market by Technology Type (2009-2017): Shipment Volume (in Units) Breakdown of Analog and Digital Radios (includes corresponding Graph/Chart)

Future Proof Communication Enabled by Hybridization & Broadband-Narrowband Integration Accelerates Adoption

TETRA Battles for Space among Myriad of Critical Communication Technologies

LTE Holds Potential to Steal the Thunder from TETRA

Advanced LTE Technologies to Usher in the Era of Smart Public Safety Radio Communication

Standardizing LTE-based TETRA 3 Broadband: Critically Important for Future Success

**Table 7.** LTE Peak Data Rates (includes corresponding Graph/Chart)

Challenges in Implementing LTE-Based TETRA & Pure LTE Critical Communications Interoperability: A Key Success Factor

## **4. TECHNOLOGY OVERVIEW**

TETRA Technology: Introduction

TETRA Operation Modes

Trunked Mode Operation (TMO)

Direct Mode Operation (DMO)

Pros and Cons

Digital Technology

Voice Quality

RF Coverage

Non-Voice Services

Security

Cost Factors

Economies of Scale

Competition

Technology Maturity

Life Cycle Cost

Trunking

Additional Services/Facilities

Disadvantages

Tetra Association

End-User Analysis

Public Safety Radio Services

Police Radio Service

Fire Radio Service

Local Government Radio Service

Highway Maintenance Radio Service

Land Transportation Radio Services

Motor Carrier Radio Service

Railroad Radio Service

Taxicab Radio Service

Automobile Emergency Radio Service

## **5. TETRA STANDARDS: A DETAILED REVIEW**

TETRA 1 Radio System

Rationale for Utilizing TDMA Technology for TETRA

TETRA Release

TETRA Enhanced Data Service (TEDS)

**Table 8.** TEDS Channel Bit Rates (in kbits/s) on the Downlink (includes corresponding Graph/Chart)

## TETRA

TCCA Plays Pivotal Role in Expanding Geographic Presence of TETRA

TCCA Working to Ensure Adequate Spectrum for Broadband Critical Communications over LTE

## 6. COMPETITIVE LANDSCAPE

Airbus, Hytera & Motorola Dominate the Global TETRA Handsets Market

**Table 9.** Leading Players in the World TETRA Handsets Market (2017): Percentage Breakdown of Installed Base for Airbus Defence and Space, Hytera/Sepura, Motorola Solutions Inc., and Others (includes corresponding Graph/Chart)

Hytera Makes a Big Leap with Sepura Acquisition

**Table 10.** Sepura Takes the Top Spot in Global, German and the UK Markets (2015) (includes corresponding Graph/Chart)

Motorola Delivers Extensive PMR Product Portfolio

Airbus' Share in TETRA Market Wanes

Other Major PMR Players to Foray Into TETRA Market

M&A Activity

Select M&A Deals involving TETRA & Related Technologies Vendors (2015-2018)

6.1 Focus on Select Global Players

Airbus Defence and Space (France)

Cobham plc (UK)

DAMM Cellular Systems A/S (Denmark)

ETELM (France)

Hytera Communications Corporation Ltd. (China)

Sepura PLC (UK)

Motorola Solutions, Inc. (USA)

## 6.2 Product Innovations/Introductions

Airbus Demonstrates Viewcor with New Capabilities

Motorola Solutions Launches ST7500 Compact TETRA Radio

SIEMENS and DAMM Successfully Test ETCS-over-TETRA Solution

Sepura Bags Airwave & NCSC Approval for SC21 Hand-Portable in the UK

Airbus Showcases Tactilon Dabat with New Features

Motorola Rolls Out DIMETRA Express

Hytera Unveils DIB-R5 Outdoor Base Station

Sepura Unveils SC21 Smart TETRA Hand-Held Radio

Motorola Unveils DIMETRA X Core Scalable TETRA System

## 6.3 Recent Industry Activity

Airbus Modernizes the US Army's Secure Mobile Communication System at Fort Irwin

Airbus to Upgrade TETRA Network for Stadtwerke München

Airbus Divests Plant Holdings to Motorola Solutions

Airbus Inks New Tetra Network Contract with Justtop in Beijing

Motorola to Expand TETRA Network for Georgia's Emergency Management Service

Motorola to Deploy DIMETRA X Core TETRA System for HEP of Croatia

Motorola Solutions Wins New Contract from Polish Army

Motorola Solutions Wins TETRA Systems Supply Contract from German Authorities

Hytera Inks TETRA Technology Contracts in Brazil

Sintel Italia Inks Multi-Year Distribution Agreement with Sepura

JVCKENWOOD Acquires Stake in Tait Communications

Teltronic to Supply TETRA Solution to PT. Mobinet Indonesia

DAMM to Deploy DAMM TetraFlex Radio System in Kannur International Airport

Sepura Commences TETRA Terminals Manufacturing in Shenzhen

Hytera Communications Snaps Up Sepura Group

Motorola Solutions Acquires Kodiak Networks

Motorola Solutions Opens New Office in Milan

DAMM Establishes DAMM Cellular Systems in the US

DAMM to Provide TETRA System for Mumbai Monorail Phase II

Sepura to Supply TETRA System to Tata Steel's Flagship Site in Netherlands

Hytera Installs TETRA Network in Chemung County's Bus System in New York

Teltronic to Deploy Complete TETRA Solution for Manila Metro Rail Transit Line

Motorola Solutions Collaborates with Norwegian Nødnett and Finnish VIRVE Network

Hytera to Deploy Nationwide TETRA System in Angola

Teltronic Agrees to Supply Further TETRA Onboard Radio Equipment for Madrid Metro

Hytera Delivers TETRA Solution to Ras Al Khair SWCC Plant in Saudi Arabia

ETELM Joins Hands with Nemergent to Develop MCPTT Solution

## 7. GLOBAL MARKET PERSPECTIVE

**Table 11.** World Recent Past, Current and Future Analysis for TETRA Terminals by Geographic Region - US, Canada, Europe, Asia-Pacific, Middle East & Africa, and Latin America Markets Independently Analyzed with Annual Shipments in Units for Years 2015 through 2022 (includes corresponding Graph/Chart)

**Table 12.** World 5-Year Perspective for TETRA Terminals by Geographic Region - Percentage Breakdown of Unit Shipments for US, Canada, Europe, Asia-Pacific, Middle East & Africa, and Latin America Markets for Years 2018 and 2022 (includes corresponding Graph/Chart)

**Table 13.** World Recent Past, Current and Future Analysis for TETRA Terminals by End-Use Industry - Transport, Public Safety, Utilities, and Others Markets Independently Analyzed with Annual Shipments in Units for Years 2015 through 2022 (includes corresponding Graph/Chart)

**Table 14.** World 5-Year Perspective for TETRA Terminals by End-Use Industry - Percentage Breakdown of Unit Shipments for Transport, Public Safety, Utilities, and Others Markets for Years 2018 and 2022 (includes corresponding Graph/Chart)

## 8. REGIONAL MARKET PERSPECTIVE

### 8.1 The United States

#### A. Market Analysis

US Emerges as a Niche Market for TETRA Technology

FCC Ruling Unlocks US Market to TETRA

#### B. Market Analytics

**Table 15.** US Recent Past, Current and Future Analysis for TETRA Terminals Market Analyzed with Annual Shipments in Units for Years 2015 through 2022 (includes corresponding Graph/Chart)

### 8.2 Canada

#### Market Analysis

**Table 16.** Canadian Recent Past, Current and Future Analysis for TETRA Terminals Market Analyzed with Annual Shipments in Units for Years 2015 through 2022 (includes corresponding Graph/Chart)

### 8.3 Europe

#### A. Market Analysis

The Most Dominant Consumer of TETRA Technology

TETRA Gains Traction across Multifarious Verticals in Europe

Airbus Defence and Space Leads Development of PMR Technology in France

Challenges Involved with Enabling Critical Communications in the UK

UK Government Mulls Transition from TETRA to LTE

Path to LTE Based Critical Communications Paved With Challenges

Norway's DNK to Enhance Nødnett TETRA Network

#### B. Market Analytics

**Table 17.** European Recent Past, Current and Future Analysis for TETRA Terminals Market Analyzed with Annual Shipments in Units for Years 2015 through 2022 (includes corresponding Graph/Chart)

### 8.4 Asia-Pacific

#### A. Market Analysis

China's TETRA Network Grows by Leaps and Bounds

Multinational Players Keenly Eye Thriving Chinese LMR Market

TETRA Faces the Heat from Competing PDT and LTE Communications Technologies in China

Competitive Scenario

TETRA Adoption Scenario across Rest of Asia-Pacific Region

#### B. Market Analytics

**Table 18.** Asia-Pacific Recent Past, Current and Future Analysis for TETRA Terminals Market Analyzed with Annual Shipments in Units for Years 2015 through 2022 (includes corresponding Graph/Chart)

### 8.5 Middle East & Africa

#### Market Analysis



**Table 19.** Middle East & Africa Recent Past, Current and Future Analysis for TETRA Terminals Market Analyzed with Annual Shipments in Units for Years 2015 through 2022 (includes corresponding Graph/Chart)

8.6 Latin America  
Market Analysis

**Table 20.** Latin American Recent Past, Current and Future Analysis for TETRA Terminals Market Analyzed with Annual Shipments in Units for Years 2015 through 2022 (includes corresponding Graph/Chart)

## **9. COMPANY PROFILES**

Total Companies Profiled: 23 (including Divisions/Subsidiaries - 27)

The United States (2)

Europe (20)

France (4)

Germany (6)

The United Kingdom (4)

Italy (1)

Spain (1)

Rest of Europe (4)

Asia-Pacific (Excluding Japan) (5)

## I would like to order

Product name: TETRA Terminals: Market Research Report

Product link: <https://marketpublishers.com/r/T5D7E7964DEEN.html>

Price: US\$ 5,450.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/T5D7E7964DEEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970