**BACKGROUND INFORMATION
U.S. STANDARDS DIRECTORY**

**U.S.–India Standards and
Conformance Cooperation Program
(SCCP)**

www.StandardsPortal.org/us-indiasccp

TELECOMMUNICATIONS EQUIPMENT (ICS 33.050)

Introduction

Telecom equipment includes terminal equipment such as telephones, pagers, and fax machines.

Feedback from Indian stakeholders in the government and private sector

Activities of Government of India (GOI) ministries in the area of telecom equipment indicate that the Indian government places a high priority on developments in the sector. Based on feedback from CII, telecom equipment is a very important sector within Indian industry, as it is critical to India's ICT services industry.

Indian standards and regulatory developments

To ANSI's knowledge, there are not currently any draft Indian Standards (IS) pertaining to telecom equipment in progress. The full list of relevant Indian Standards may be found in BIS' online catalog.

The Telecom Regulatory Authority of India (TRAI) was established under the Ministry of Communications and Information Technology, Department of Telecommunications in 1997 to regulate telecommunications. The TRAI has introduced eight new regulations in 2009, mainly related to telecommunications services. A full list of TRAI regulations may be found here.

The Telecom Engineering Centre (TEC), a semi-autonomous technical arm of the Indian Department of Telecom, has the responsibility of formulating standards related to telecom equipment, as well as testing and certification of telecom equipment. Significant recent initiatives of the TEC include identification and accreditation of domestic conformity assessment and certification bodies, as well as recognition of foreign CABs and CBs under relevant mutual recognition agreements (MRAs).

Concentration of Indian SMEs in industry sector

According to the Indian Ministry of Micro, Small and Medium Enterprises, it is estimated that Indian micro and small enterprises account for 39% of the manufacturing output and 33% of the total export of the country. In the telecom equipment sector specifically, the concentration of SME's is not significant, but rather the sector is mostly dominated by larger companies. However, some of the components for the equipment are manufactured by Indian SME's. Further, India's import of telecom equipment from the U.S. and other markets supports the Indian ICT services industry, which has a high concentration of Indian SME's.

Bilateral U.S. – India trade flows

According to TradeStats Express, operated by the Office of Trade and Industry Information (OTII), Manufacturing and Services, International Trade Administration, U.S. Department of Commerce, the following table lists the total value of Indian exports to the U.S., and U.S. exports to India for the last three years:

Total Telecom Equipment Sector	2006	2007	2008
U.S. Exports to India	$364.5 million	$477.6 million	$538.9 million
India Exports to U.S.	$160.4 million	$153.9 million	$300.6 million

The data reflects a marked upward trend in bilateral trade for the sector, particularly in Indian exports from 2007 to 2008, which nearly doubled.

The U.S. Commercial Service listed telecommunications equipment as one of the leading sectors for U.S. export and investment for 2008[1]. The India Country Commercial Guide notes that India has one of the fastest growing telecommunications systems in the world, and increased demand for services is likely to continue to grow.

Relationship to U.S. Gross Domestic Product (GDP)

In addition to the trade data listed above, ANSI has prepared information on the contribution of the telecom equipment sector to the total U.S. GDP. Information was available through 2007, and data for 2005-2007 is listed in the table below[2].

	2005	2006	2007
Total U.S. GDP	$12.4 trillion	$13.1 trillion	$13.8 trillion
Value telecom equipment sector	$310.4 billion	$317 billion	$342.3 billion
% of Total U.S. GDP	2.499%	2.406%	2.480%

(broadcasting and telecommunications)

Priority placed on standardization within the U.S. sector:

The U.S. is highly active in standardization for telecommunications equipment. In the area of private sector standards and conformance, the U.S. holds the ISO/IEC secretariat for JTC 1 (information technology). In addition, U.S.-based standards developers such as the Telecommunications Industry Association (TIA), INCITS, ATIS, IEEE, and ASTM International are active in developing develop standards for telecommunications equipment. U.S. trade associations such as the National Electrical Manufacturers Association (NEMA) and TIA, and

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[1] India Country Commercial Guide, 2008, U.S. Commercial Service (http://www.buyusainfo.net/docs/x_5005650.pdf)
[2] U.S. Bureau of Economic Analysis (http://www.bea.gov)

conformity assessment bodies such as Underwriters Laboratories (UL) and FM Approvals are also actively engaged in standards and conformance for telecommunications equipment. Many of these organizations are listed in the StandardsPortal profile pages.