Government of India
Department of Telecommunication
Telecommunication Engineering Centre
Gate No.5, Khurshid Lal Bhawan, Janpath, New Delhi-110001
Radio Division

No. 3-4017/2021-R/TEC(part-1) **Date:** 25th March, 2026

Subject: Withdrawal of Standards of GRs and associated Test Guides of Radio Division – reg.

In compliance with the provisions of Section 19 of the Telecommunications Act, 2023 read with the Telecommunications (Framework to Notify Standards, Conformity Assessment and Certification) Rules, 2025, and in accordance with TEC Procedures 05009:2025, it has been decided that 23 obsolete/legacy standards, as listed in ***Annexure-I***, stands withdrawn.

2. This issues with the approval of the competent authority.

(Vineet Malik)
Director (Radio-II), TEC

Encl: As Above (Annexure-I)

To

DDG(IT) with a request to upload on TEC website

Annexure-I

https://www.tec.gov.in/standards-specifications

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
1.	7 GHz SDH STM-1 Microwave Equipment	TEC 36040:2011	1/1/2011	This document specifies the generic requirements for point-to-point indoor type high capacity SDH (Synchronous Digital Hierarchy) radio relay system operating in the 7 GHz frequency band for the Indian Telecommunication Network. The equipment provides STM-1 capacity per carrier and is suitable where traffic requirement is in multiples of STM-1. The system shall conform to ITU-R Recommendations F.750-4 and F.751-2 and relevant ITU-T	Yes (TEC36041:2011, Old no. TEC/TSTP/GR/Tx/DMW-12/03. JAN 2011)	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				Recommendations for SDH including G.707, G.783, G.825, G.823 and G.921. The equipment is of two types: Type I with RST functionality (upgradable to MST) and Type II with both RST and MST functionality.		
2.	18 GHz, 16 x 2 Mb/s Integrated Digital Microwave Equipment	TEC 36130:2008	1/1/2008	This document contains the generic requirements for point-to-point low and medium capacity digital integrated radio relay system of split type (indoor–outdoor) operating in the 18 GHz frequency band for the Indian Telecommunication Network. The system should be of integrated type (Radio with antenna) having balanced type of couplers supported	Yes (TEC36131:2008, Old no. TSTP/DMW-03/05. JAN 2008)	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				without waveguide. It is intended for intra-city traffic requirements on short haul routes, with the radio portion fitted outside along with the antenna, and it is suitable where the requirement of the traffic payload is 4x2 Mbps, 8x2 Mbps, or 16x2 Mbps.		
3.	SDH, STM-1 Microwave equipment in 6GHz and 11GHz frequency bands	TEC 36140:2008	1/11/2008	This document contains the generic requirements for point-to-point high capacity SDH (Synchronous Digital Hierarchy) radio relay systems operating in lower 6 GHz, upper 6 GHz and 11 GHz frequency bands for the Indian Telecommunication Network. The equipment provides transmission links with a capacity per RF carrier of STM-	Yes (TEC36141:2009, Old no. TSTP/DMW - 09/04. JAN 2009)	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				1 and is suitable where traffic payload requirement is in multiples of STM-1. The system shall conform to ITU-R Recommendations F.750-4 and F.751-2 and relevant ITU-T Recommendations including G.707, G.783, G.825, G.823, G.921 and G.798, and shall be capable of deployment in networks extending to international links.		
4.	SDH, Integrated Microwave Equipment in 13 GHz band	TEC 36150:2008	1/9/2008	This document contains the generic requirements for point-to-point high capacity STM-1 SDH (Synchronous Digital Hierarchy) radio relay systems operating in the 13 GHz frequency band for the Indian Telecommunication Network. The system is	Yes (TEC36151:2008, Old no. TSTP/DMW - 11/03. SEP 2008)	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				primarily intended for intra-city short haul routes in single hop or multi-hop configuration and provides a total capacity of up to 8 RF carriers/channels of STM-1, supporting configurations such as (7+1) for Indoor type and (3+1) for Split type (without Mux), as well as (N+1) with frequency and/or space diversity and (1+0) unprotected configuration. The system is suitable where traffic payload requirement is in multiples of STM-1 and shall conform to ITU-R Recommendations F.750-4 and F.751-2 and relevant ITU-T Recommendations including G.707, G.783, G.825, G.823, G.921 and G.958.		

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
5.	15 GHz 4X2 Mbps Integrated Digital Microwave equipment	TEC 36160:2004	1/12/2004	This document contains the generic requirements for the point-to - point low capacity digital fixed wireless system including radio equipment & antenna, in 15 GHz frequency band for the Indian Telecommunication network. The system shall work in multi hop configuration and will be used for intra city point to point and subscriber carrier applications. The radio equipment shall be used to install a transmission link with a capacity of 4X2 Mbps. The system shall conform to the relevant Recommendations of the ITU-T and ITU-R.	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
6.	23 GHz 4X2 Mbps Integrated Digital Microwave Equipment	TEC 36170:2004	1/12/2004	This document contains the generic requirements for the point-to - point low capacity digital fixed wireless system including radio equipment & antenna, in 23 GHz frequency band for the Indian Telecommunication network. The system shall work in multi hop configuration and will be used for intra city point to point and subscriber carrier applications. The radio equipment shall be used to install a transmission link with a capacity of 4X2 Mbps. The system shall conform to the relevant Recommendations of the ITU-T and ITU-R.	No	Withdrawn
7.	15 GHz STM-1 SDH Microwave	TEC 36180:2007	1/2/2007	This document contains the generic	Yes (TEC36181:2	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
	Equipment			requirements for the point-to-point high capacity SDH (Synchronous Digital Hierarchy) radio relay systems in 15 GHz frequency band for the Indian telecommunicati on network. The Integrated radio relay system shall be used for intra-city traffic requirements on short haul routes. The Radio portion shall be moulded outside with the antenna. This system is suitable where the requirement of the traffic payload is in multiples of STM-1	007, Old no. TSTP/DMW - 18/02.FEB 2007)	
8.	Integrated Microwave Equipment for 4/8/16 E1 in 15 GHz and 23 GHz Frequency bands	TEC 36200:2009	1/9/2009	This document contains the generic requirements of point-to-point medium capacity digital integrated radio relay system of split type (Indoor-outdoor type) in 15 GHz	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				and 23 GHz bands frequency band for the Indian telecommunicati on network. The system shall be of typically integrated type (Radio with antenna for antennae size upto 1.8 m dia) having balanced type of couplers supported without waveguide. The Microwave System shall be used for intra-city traffic requirements on shorthaul routes. The Radio portion shall be fitted outside along with the antenna. This system is suitable where the requirement of the traffic payload is 4x2 Mbps, 8x2 Mbps, or 16x2 Mbps.		
9.	13 GHz, 34 /16 x 2 Mbps Microwave Equipment Dated:15/0	TEC 36210:2003	1/1/2003	This document contains the specifications relate to Digital Radio Relay System in 13 GHz Microwave	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
	6/2004) (Amendment No.1)			frequency band with the capacity of 16 E1 for use in Indian Telecommunication Network. The radio relay systems shall be used for intra-city traffic requirements on short haul routes in single hop and in multi-hop configuration. In multi-hop configuration, the equipment shall be capable of working up to 4 or more hops.		
10.	18 GHz Sub STM-1 Integrated Digital Microwave Equipment	TEC 36220:2005	1/1/2005	This document contains the generic requirements of the point-to-point medium capacity equipment & antenna in 18 GHz frequency band for the Indian telecommunication network. The radio relay systems shall be used for intra-city traffic requirements on short haul routes in a multi hop configuration.	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				The radio equipment shall be used to install a transmission link with a capacity per RF carrier of Sub STM-1 (51.84 Mbps). This system is suitable where the requirement of the traffic payload is less than that of STM-1. When the STM-1 frame is partly filled, the sub STM-1 radio transports only the part of the STM-1 signal which carries the payload with necessary SOH bytes.		
11.	18 GHz STM-1 Integrated Digital Microwave Equipment	TEC 36230:2007	1/2/2007	This document contains the generic requirements for the point-to-point high capacity SDH (Synchronous Digital Hierarchy) radio relay systems in 18 GHz frequency band for the Indian telecommunicati on network. The Integrated radio	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				relay system shall be used for intra-city traffic requirements on short haul routes. The Radio portion shall be moulded outside with the antenna. This system is suitable where the requirement of the traffic payload is in multiples of STM-1		
12.	Digital Circuit Multiplication Equipment (DCME) with 5:1 and 10:1 gain	TEC 36240:2006	1/9/2006	This document specifies the configuration and performance specification of Digital Circuit Multiplication Equipment (DCME) which can be used for both satellite and terrestrial based trunk network. Capacity gain is achieved by using a combination of Digital Speech Interpolation (DSI), Low Rate Encoding (LRE) and Variable Bit Rate (VBR) techniques. The DCME shall be	Yes (TEC36241:2006, Old no. TSTP/GR/DME-01/03.SEP. 2006)	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				fully compliant with ITU-T Recommendation G.763 (INTELSAT specifications IESS-501 (Rev.3)). While main document specifies the DCME with 5:1 gain, additional conditions are listed in the Annexure for DCME with 10:1 gain.		
13.	Frequency Counter (10 Hz–18 GHz)	TEC 44100:2004	1/4/2004	This document contains the generic requirements of frequency counter covering the frequency range from 10 Hz to 18 GHz. The Frequency Counter is used for accurate frequency measurements on telecommunication systems and sub-systems during commissioning, maintenance Wide tolerance of AM (Amplitude modulation), FM (Frequency	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				Modulation) and residual noise shall ensure accurate measurement of microwave frequencies despite the presence of these deviations.		
14.	Multipath Fade Simulator	TEC 44130:2005	1/5/2005	The document contains the generic requirements of the multipath fade simulator working in the 70 MHz and 140 MHz IF bands. Multipath fade simulator is an instrument used to measure the capability of equalizers in modern digital microwave radios to compensate for multipath fading. The instrument shall be capable of printing static M curves, dynamic M curves, dynamic S curves, hysteresis curves and calculate the dispersive fade margin. The instrument should have AGC ON and	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				OFF facility. It shall have in-built error counter, event counter and printer for printout of the parameters and results.		
15.	2 Mbps Digital Echo Canceller	TEC 44140:2007	1/5/2007	This document contains generic requirements relating to echo cancellers which are voice operated devices placed in the 4-wire portion of a circuit and are used in 2 Mbps national and international circuits built on geostationary satellite networks for reducing the echo by subtracting an estimated echo from circuit echo. Echo canceller shall comply to ITU-T Recommendations G.164 and G.165. **Note: This is a duplicate GR of TEC 41210:2007.**	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
16.	2.7 GHz Synthesized Signal Generator (100 KHz â€“ 2.7 GHz)	TEC 44170:2004	1/7/2004	This document contains the generic requirements of synthesized signal generator in the frequency range from 100 KHz to 2.7 GHz. The RF signal generator with discrete or continuous sweep facility is a source for frequency generation and is used for commissioning and maintenance of telecommunicati on systems, sub-systems and testing in the laboratory. The instrument shall be microprocessor controlled to provide simple and rapid operation by direct key board entries of settings.	No	Withdrawn
17.	20 Meter Narrow Base Heavy Weight Tower	TEC 45040:2000	1/12/2000		No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
18.	6 GHz Waveguide	TEC 35190:2007	1/2/2007	This document contains the generic requirements of 6 GHz Waveguide to be used for 6 GHz Microwave Systems. he 6 GHz Waveguide shall be used in conjunction with 6 GHz Microwave Systems at one end 6 GHz antenna at the other end. The waveguide system shall consist of corrugated copper flexible non- circular waveguide with polyethylene jacket along with 'E' and 'H' bends and suitable terminations at both ends. The waveguide shall be rugged and it shall be possible to re-use the system by use of re-bends , if necessary . The waveguide shall be supplied in full drum length, terminated at	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				one end and pressurized and sealed at the other end for transport . Attachment of end fittings shall be done in the field and it shall be possible with standard tools.		
19.	Local Multipoint Distribution system in 10.5 GHz Frequency Band	TEC 36010:2016	1/3/2016	This document contains the generic requirements of LMDS Equipment & Antenna in 10.5 GHz frequency band. This specification relates to the Digital point to multipoint Radio System in 10.5 GHz frequency band for providing economical and reliable communication for voice, data and video to a cluster of users distributed over an area. The service shall be provided by sharing common pairs of Radio frequency channels which can be used by	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				equipment employing Frequency Division Duplex (FDD). The LMDS equipment can be split type or full outdoor type		
20.	Local Multipoint Distribution system In 26 GHz Frequency band	TEC 36020:2016	1/3/2016	This document contains the generic requirements of LMDS Equipment & Antenna in 26 GHz frequency band. This specification relates to the Digital point to multipoint Radio System in 26 GHz frequency band for providing economical and reliable communication for voice, data and video to a cluster of users distributed over an area. The service shall be provided by sharing common pairs of Radio frequency channels which can be used by equipment employing	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				Frequency Division Duplex (FDD). The LMDS equipment can be split type or full outdoor type		
21.	Local Multipoint Distribution system in 28 GHZ Frequency Band	TEC 36030:2016	1/3/2016	This document contains the generic requirements of LMDS Equipment & Antenna in 28 GHz frequency band. This specification relates to the Digital point to multipoint Radio System in 28 GHz frequency band for providing economical and reliable communication for voice, data and video to a cluster of users distributed over an area. The service shall be provided by sharing common pairs of Radio frequency channels which can be used by equipment employing Frequency Division Duplex	No	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				(FDD). The LMDS equipment can be split type or full outdoor type.		
22.	STM-1 Satellite Modem for Ku band	TEC 41260:2008	1/8/2008	This document describes generic requirement for satellite modem to carry STM-1 signal in point-to-point application between all types of earth stations,	Yes (TEC41261:2008, Old no. TEC/TSTP/GR/TX/STM-001/01/AUG-08)	Withdrawn

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				working in INSAT system. The design of carriers shall be based upon the ITU-R Recommendations S. 1149.2. The modulation and coding shall be so selected as to ensure transmission of STM-1 confined within a transponder of 72 MHz. The earth station selection shall be done so as to support the link within this requirement of bandwidth and given transponder power. The modem should be able to work in Ku as well as C band. This GR, however, covers the specifications of Up/Down Converters operating in Ku band only. The system shall be configured with redundancy of (1:1) for main as well as for remote station		

S.No	GR Name	GR No.	Date of Issue	Gist of the Standard	Whether Test Guide/ TSTP available (Yes/No)	Remarks
				with point to point configuration."		
23.	60 Meter Heavy Weight M/W Tower	TEC 45120:2000	1/1/2000	This document contains Generic Requirement for sixty (60) metre (m) Heavy Weight Microwave tower for use in DTS. The 60m tower shall be four legged with a square base of side 11 metre. The tower shall be able to support a maximum of four parabolic microwave dish solid antennas of 4m dia. The tower design is such that the maximum rotation of 0.099 degree at wind speed of 118Km/hr and 0.24 degree at wind speed of 200Km/hr is within the limits of +/- 0.5 degree at 118 Km/hr (wind pressure of 100Kg/m²) as per EIA RS222B.	No	Withdrawn

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