

Telephone :+91-522-2462440 Fax :+91-522-2452332 E-mail : harshit.1505@gov.in	 सत्यमेव जयते	भारत सरकार रेल मंत्रालय अनुसंधान अभिकल्प और मानक संगठन लखनऊ-226011 Government of India - Ministry of Railways Research Designs & Standards Organisation LUCKNOW – 226011	 अभियांत्रिकी रेल अग्रदूत Transforming Railways www.rdsco.indianrailways.gov.in
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No.RDSO-SIG0EI(TAN)/1/2022

**Through Email
Date: As signed**

To

Address (Overleaf)

Sub/वषिय: Revision of Technical Advisory Note (TAN) No. STS/E/TAN/3007 Ver 1.0

Technical Advisory Note No STS/E/TAN/3007 Ver 1.0 regarding use of embedded PC for EI was issued on 02.11.2012. Based on the field experience and continuous technological advancement in electronics industry, this Technical Advisory Note has been revised.

Please find attached herewith revised Technical Advisory Note No: STS/E/TAN/3007 Ver 2.0 dated 22.04.2026 which supersedes the earlier issued Technical Advisory Note No. STS/E/TAN/3007 Ver 1.0 Dt. 02.11.2012 with immediate effect.

This is issued with the approval of Competent Authority.

DA: As above

Harshit Mittal Digitally signed
by Harshit Mittal
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हर्षित मित्तल | **Harshit Mittal**
संयुक्त निदेशक | **Joint Director**
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कृते प्रधान कार्यकारी निदेशक /सिग. एवं दूर. | **for PED/S&T**

1	AM Signal, Railway Board, Rail Bhawan, New Delhi.	For kind information pls.
2	PED Signal/Mod., Railway Board, Rail Bhawan, New Delhi.	
3	PCSTEs All Zonal Railways, CORE, KRCL	For kind information and necessary action pls.
4	The Director General, IRISSET, Tarnaka Road, Lallaguda (P.O.), Secunderabad-500 017	
5	GM/S&T, Rail Vikas Nigam Limited, Plot No. 25, 'B' Block, 1st Floor, August Kranti Bhawan, Bhikaji Kama Place, New Delhi-66	
6	The General Manager/S&T, IRCON, Palika Bhavan, Sector XIII, R.K. Puram, New Delhi-66	
7	M/S Siemens Rail Automation Pvt Ltd, Semicon Park, Plot No 31(Pl) r Tower-2 Electronic City Phase-II, Bangalore-560100	
8	M/S Hitachi Rail STS India Private Limited., Domlur, Bengaluru, Karnataka-560071	
9	M/s Kyosan India Private Limited Office: 601, 6th Floor, Eros Corporate Tower, Nehru Place, New Delhi-110019	
10	M/S Medha Servo Drives Pvt Ltd., P-4/5B Industrial Park, Nacharam Hyderabad-5600076	
11	M/s Nippon signal India pvt. Ltd. Plot No: 20A/2, Block A & B, 3rd floor, Block A, 2nd Floor, 1st cross, K.I.A.D.B Road, 1st Phase Peenya Industrial area, Bengaluru, Karnatka, 560058	
12	M/s SafeConnect Communication (India) Pvt. Ltd., 502/503, Kamla Hub, Plot No.53, CTS No.484, Gulmohar Road, JVPD Scheme, Vile Parle (West), Mumbai 400049 (India)	

TECHNICAL ADVISORY NOTE

Subject	Embedded PC for Electronic Interlocking (EI)		
EI RDSO Spec.	RDSO/SPN/192/2019	Version	2.0 or latest
	RDSO/SPN/203/2011		1.0 or latest
Document No.	STS/E/TAN/3007		2.0
Date	22.04.2026	Pages	2

S.No.	ITEMS	
1.	Scope	
	<p>The Electronic Interlocking (EI) needs a reliable PC for VDU operation and maintenance/diagnosis that supports its 24X7 operation. The PC used in VDU operation terminals and maintenance/diagnostic terminals shall be industrial grade embedded fan-less PC. Such PCs have high levels of reliability and are designed to work in non-air condition harsh environment. It is suggested that industrial grade embedded fan less PCs of rugged and reliable type like VECOW, C&T, Advantech, MOXA series or similar shall be used. This supersedes the earlier Technical Advisory Note no. STS/E/TAN/3007, Ver 1.0, Dt.02.11.2012. The minimum requirements of industrial grade embedded fan less PC are detailed below:</p>	
2.	Minimum requirement of Embedded PC for Electronic Interlocking (EI)	
2.1	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor or better.
2.2	OS (pre-installed)	Windows 10/ Windows 7/ Linux or better version OS.
2.3	System Memory (RAM)	Minimum 8GB, DDR4 SO-DIMM
2.4	Storage (Built-in)	Minimum 256 GB SSD
2.5	Other peripherals & interface	
	a) Keyboard	Wired Keyboard of proven brand to be used as required by OEM.
	b) Mouse	Wired Mouse of proven brand to be used as required by OEM.
	c) Audio	1 Mic-in and 1 Line-out
	d) Display	<p>a) A commercial display Monitor suitable to work 24X7 application of proven brand shall be used.</p> <p>b) Minimum 2 port supporting 4K @ 60Hz or better shall be available in embedded PC.</p>
2.6	Ethernet Interface (LAN)	Minimum 2 auto sensing M12 ports
2.7	Serial Interface	a) Minimum 2 COM RS-232/422/485
		b) Minimum 3 ports USB 3.0

S.No.	ITEMS	
2.8	Environmental Limits	
	a) Operating temp.	Wide temperature models: -10° to +70° C
	b) Ambient Relative Humidity	5% to 95% (non-condensing)
	c) Anti-vibration	Comply EN 50155: Railway applications – Electronic Equipment on Rolling Stock
	d) Anti-shock	Comply EN 50155: Railway applications – Electronic Equipment on Rolling Stock
2.9	Power Requirements (Input Voltage)	12 V to 36 V DC
2.10	Standards and Certifications	a) Comply EN 50155: Railway applications – Electronic Equipment on Rolling Stock
		b) EMC : EN 50121/IEC 61000-3-3/EN 55024 or FCC part 15 subpart-B Class A
2.11	Warranty	2 years and supplier to give additional 3 years (total 5 years from date of commissioning)
2.12	Fan less	Yes
2.13	EI OEM Certificate	Certificate stating that “ proven make VDU control terminal and MT (Maintenance Terminal) PC compatible with our EI as per specifications recommended by railways has been installed ”. Certificate to be submitted by EI OEM before commissioning EI.

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