



भारतीय मानक ब्यूरो  
BUREAU OF INDIAN STANDARDS

## **IS 15754:2006/ISO 21214:2006 Intelligent transport systems — Continuous air interface, long and medium range (CALM) — Infra red systems**

This Indian Standard is identical with ISO 21214: 2006 'Intelligent transport systems – Continuous air interface, long and medium range (CALM) – Infra-red systems' issued by the International Organization for Standardization (ISO),

This Indian standard determines the air interface using infra-red systems at 820 nm to 1 010 nm.

It provides protocols and parameters for medium-range, medium- to high-speed wireless communications in the ITS sector using infra-red systems.

Such links are required for quasi-continuous, prolonged or short communications

- between vehicles and the roadside,
- between vehicles, and
- between mobile equipment and fixed infrastructure points,

over medium and long ranges.

Vehicles may be moving or stationary.

Due account is given to, and use made of, any relevant parts of appropriate communications systems, such as global positioning systems (GPS), digital audio broadcasting (DAB), digital video broadcasting (DVB), radio local area networks (RLANs), digital data broadcasting (DDB), TETRA, FM subcarrier, mobile broadband systems (MBS, W-ATM), internet protocols, and dedicated short range communication (DSRC).

This Indian Standard

- supports data rates of 1 Mbit/s up to 128 Mbit/s (it may support higher data rates);

- supports vehicle speeds up to a minimum of 200 km/h (closing speeds could be double this value);
- defines or references environmental parameters relevant to link operation;
- supports communication distances up to 100 m (it may support longer communication distances of 300 m to 1 000 m);
- supports latencies and communication delays in the order of milliseconds;
- is compliant to regional/national regulatory parameters;
- may support other regional/national parameters as applicable.

Application-specific requirements are outside the scope of this Indian Standard. These requirements will be defined in the CALM management and upper layer standards and in application standards.

Application-specific upper layers are not included in this Indian Standard , but will be driven by application standards (which may not be technology specific).

**IS 15754:2006/ISO 21214:2006 is under price group 19 of which currently priced at Rs 900/=.** [It is available from Sales Counter at BIS Headquarters as well as various Regional and Branch Offices of BIS besides at the sales outlets of Book Supply Bureau. In case of any difficulty please write to \[sales@bis.org.in\]\(mailto:sales@bis.org.in\) and \[ted@bis.org.in\]\(mailto:ted@bis.org.in\).](#)