DIGITAL PUBLIC SWITCHING SYSTEM

SRCE TC-011

The SRCE TC-011 system is a digital public telephone switching system of high capacity, designed primarily for higher levels in the network hierarchy, but which can be used at all levels of a public switching network, including the lowest - local exchanges in decentralized networks.

SRCE is a completely digital switching system with stored program control, designed for implementing neworks with remote switching units of both small and large capacities.

To users, SRCE provides a lot of services of the highest quality, it lowers network congestion due to its extraordinary technical capabilities, to operators, it provides a clear insight into the state of the network and the system itself, and increases the profits by lowering both the investment and maintenance costs.

Features

- High capacity 120 000 subscribers / 32 000 trunks
- Standard remote switching units 100 to 8 000 subscribers, optionally upto 60 000
- High traffic capacity
- Subscriber traffic upto 1 Erlang
- Complies to international standards and recommendations: ITU-T, ETSI, ISO, IEC and others
- Both analog and digital subscribers
- Modern trunk signalling systems ITU-T SS7, R2 and many classic ones, for connections with analog systems
- Standard, generaly available input-output units and data formats
- High reliability and resistance to outer influences
- Integrated auto-diagnostic functions
- Modular internal construction enables easy exapnsion or re-configuration

Applications

- Switching node in public network
- Node in special / private / closed networks
- Private Branch Excahnge of large capacity
- Painless replacement of older generations switching systems

Advantages

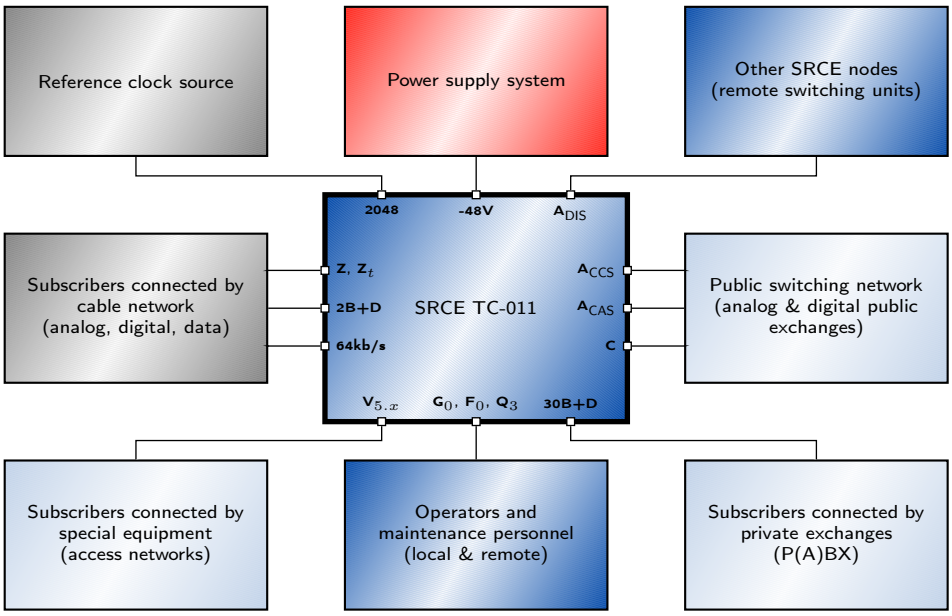
- Completely programmaticaly adjustable interfaces
- Extremely low power consumption
- Plenty of functions for surveillance and maintenance of other network elements
- Direct ("by-pass") connections of remote switching units
- Simple and user-friendly work of operators is provided by advanced Graphic User Interface
- Ability to support "obsolete„ networks (i.e. party line boxes) which simplifies replacement of older generation switching systems

Extreme adjustability of the SRCE TC 011 system makes it an equally good solution for forming new, completely digital switching networks and for modernization and enhancement of existing analog or analog-digital network. SRCE TC 011 is a simple, elegant and efficient solution for complex tasks in public switching network.

The SRCE TC 011 system is designed to fit into any position in the switching network. Numerous advanced features for routing and traffic control make it an ideal solution for transit, tandem, local and combined network nodes. It easily adjusts to specific needs of national networks.

The fundamental feature of the SRCE system is connecting to the environment through internationally standardized interfaces.

Along with other GVS products, like uninterruptible power supply systems, test & measurement equipment, and others, SRCE TC 011 offers a complete, efficient and integrated solution that provides sigle source provision of all telecom equipment.



Technical data

Subscriber interfaces

Analog Z, Q.55x, 64 kb/s
Analog, tariff 16 kHz / polarity
ISDN BRI U, G.961 144 kb/s
ISDN PRI A, G.703 2048 kb/s
Signalling DSS1 ITU-T Q.93x
Data transfer Cont, G.703 64 kb/s
Overvoltage protection ITU-T K.20
Access networks $V_{5.x}$, ITU-T G.964 - G.965

Trunk interfaces

Bit-rate 2048 kb/s ±50 ppm
Line code HDB3
Impedance 120 Ω, UTP / 75 Ω, coax
Overvoltage protection ITU-T K.41
SS7 level 2/3 MTP Q.701 - Q.709
SS7 level 4 ISUP Q.761 - Q.764
SS7 protocols SCCP, TCAP, INAP
Sig. system R2 ITU-T Q.451 - Q.452
Other sig. systems 2600Hz, R1,5...

System interfaces

Operation & Maintenance LAN, 100BaseT
Remote mngmnt. TMN Q_3, ITU-T M.3400
System printer Laser A4
Input-output units FDD, CD-R
Alarm panel RS-232, RS-485
Synchronization 2048 kb/s ±50 ppm 120 Ω
Power supply 48 V, A - ETSI ETS 300 132-2

Capacity

Subscribers 60.000 @ 0,2 E
Subscribers 240.000 @ 0,05 E
Basic ISDN 30.000 @ 0,4 E
Primary ISDN 2.000 @ 6 E
Subscribers by RSU 60.000 @ 0,2 E
Basic ISDN by RSU 12.000 @ 0,4 E
Primary ISDN by RSU 800 @ 6 E
Max. trunks 32.000 @ 1 E
Max remote sw. units 1000

Traffic

Traffic capacity 15.494 E
Analog subscriber 0,2 E
ISDN basic subscriber 0,4 E
ISDN basic subscriber 30 E
Trunk 1 E
Call processing 500.000 BHCA

Functional features

Supplemental services 61, CEPT/ETSI
ISDN Supp. services 25, ITU-T/ETSI
Subs. number digits upto 8
Dial. number digits 25
Max. routes 255
Max. database backups 100
Talk machine 127 channels
Voice messages 140 minutes
Lawful interception ETSI ES 201 671

Synchronization

Sync. features ITU-T G.823 и Q.541
Sync. sources 20
Absolute accuracy 2x10^{-10}
Temperature stability 10^{-10}

Electric characteristics

Transmission for non-local con. G.712, G.507
Trans. for local connection Q.517, Q.552
Attenuation 7 dB (-0,3 +0,7) @ 1020 Hz
Non-linear distorsion ±0,5dB (-55 +3dB$_{mo}$)
Crossover attenuation >73dB @1020Hz
Psophometric noise < -72 dB$_m$ (400 pW)
Non-psoph. noise < -40 dB$_m$ (100 000 pW)
Intermodulation <-41dB$_{m0}$ @ 900/1020Hz
Point of overload 3,14 dB$_{m0}$ @ 1000Hz
Consumption by subs. < 0,2 W @ 0,1 Erl

Mechanics

Temperature range 0°C to 40°C
Storage -20°C to 60°C
Relative humidity 0 до 90%
Board dimensions 4 x Euro
Cabinet dimensions 23", 2,15 m

Reliability & Maintenace

MTBF 40 година
Spare parts 1%
Malfunction detection automatic, 50-200 ms

GVS ko - research, development, manufacturing & engineering company in electronics

Product line
High capacity digital switching systems
Uninterruptable power supply systems
Special purpose test & measurement equipment
Special purpose communications equipment

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