

DBP TELEKOM Fernmeldetechnisches Zentralamt Referat F 46	Anwendungsspezifikation für das CCITT Zeichengabesystem Nr.7 im nationalen Netz der Deutschen Bundespost TELEKOM Teil 1: Allgemeines	FTZ 1 TR 7 Teil 1
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1 Vorbemerkungen

Der vorliegende Teil 1 der FTZ-Richtlinie 1 TR 7 enthält allgemeine Angaben, die für alle folgenden Teile dieser FTZ-Richtlinie in gleicher Weise gültig sind.

Grundsätze

Die FTZ-Richtlinie 1 TR 7 gilt für die Anwendung des CCITT-Zeichengabesystems Nr. 7 im nationalen Netz der Deutschen Bundespost.

Nicht inbegriffen ist die Zeichengabe für das Funkfernsprechnetzt C.

Zukünftige Änderungen und Ergänzungen, die bedingt sein können durch:

- Erfahrungen aus Testbetrieb und ISDN Pilotprojekt
- Fortschritte in den Arbeiten der internationalen Standardisierungsgremien
- zusätzliche Dienstmerkmale und technische Merkmale

erfordern eine Neuauflage der entsprechenden Teile dieser Richtlinie bzw. einen Nachtrag hierzu.

Das Bedienen und Instandhalten der zeichengabetechnischen Einrichtungen wird hier nicht behandelt.

Die in dieser FTZ-Richtlinie enthaltenen Bilder und Diagramme dienen zur Erläuterung des Textes. Sollten Widersprüche zwischen Text und Diagrammen bestehen, dann ist der Text verbindlich.

2 Definitionen der speziellen Terminologie

active signalling link

A signalling link which has successfully completed the initial alignment procedures and carries (or is ready to carry) signalling traffic.

adjacent signalling points (Benachbarte Zeichengabepunkte)

Two signalling points that are directly interconnected by (a) signalling link(s).

alignment error rate monitoring (Synchronisations-Fehlerratenüberwachung)

A procedure by which the error rate of a signalling link is measured during the initial alignment.

alternative routing (of signalling)

The routing of a given signalling traffic flow in case of failures affecting the signalling links, or routes, involved in the normal routing of that signalling traffic flow.

Anwenderteil für ISDN

Der für ISDN-Zwecke spezifizierte Anwenderteil (User Part).

associated mode (of signalling) (assoziierte Betriebsweise)

The mode where messages for a signalling relation involving two adjacent signalling points are conveyed over a directly interconnecting signalling link.

backward indicator bit (Rückwärtskennungsbit)

A bit in a signal unit requesting, by its status change, retransmission at the remote end when a signal unit is received out of sequence.

backward sequence number (Rückwärtsfolgenummer)

A field in a signal unit sent which contains the forward sequence number of a correctly received signal unit being acknowledged

basic (error correction) method ("basic"-Fehlerkorrekturmethode)

A non-compelled, positive/negative acknowledgement, retransmission error control system

Befehl

Eine Information (Primitive), die an eine niedrigere Funktionsebene abgegeben wird.

changeback (Lastrückschaltung)

The procedure of transferring signalling traffic from one or more alternative signalling links to a signalling link which has become available.

changeback code

A field in the signalling network management messages used in the changeback procedure; it is used to discriminate messages relating to different changeback procedures performed at the same time towards the same signalling link.

changeover (Lastübernahme)

The procedure of transferring signalling traffic from one signalling link to one or more different signalling links, when the link in use fails or is required to be cleared of traffic.

check bit (Prüfbits)

A bit associated with a character or block for the purpose of checking the absence of error within the character or block.

check loop

A device which is attached to interconnect the Go and Return paths of a circuit at the incoming end of a circuit to permit the outgoing end to make a continuity check on a loop basis.

common channel signalling (Zentralkanal-Zeichengabe)

A signalling method in which a single channel conveys by the means of labelled messages, signalling information relating to a multiplicity of circuits or calls and other information such as that used for network management.

connection identification

Zwischen "Transportfunktionsteil" und "Anwenderteil für ISDN" verwendeter Kode zur Zuordnung der von ihnen ausgetauschten Informationen (Primitives) zu einer temporären Zeichengabetransaktion.

continuity check (Leitungsdurchgangsprüfung)

A check made to a circuit or circuits in a connection to verify that an acceptable path (for transmission of data, speech, etc) exists

continuity check transponder

A device which is used to interconnect the Go and Return paths of a circuit at the incoming end which on detection of a check tone transmits another check tone to permit a continuity checking of a 2-wire circuit.

controlled rerouting (Kontrollierte Lastumschaltung)

A procedure of transferring in a controlled way signalling traffic from an alternative signalling route to the normal signalling route, when this has become available.

cross-office check (Vermittlungsstellen-Durchgangsprüfung)

A check made across the exchange to verify that an acceptable speech path exists.

Data User Part (Anwenderteil für leitungsvermittelte Datendienste)

The User Part specified for data services.

destination point code (Zielpunktkode)

A part of the label in a signalling message which uniquely identifies, in a signalling network, the (signalling) destination point of the message.

dual seizure (Gegenbelegung)

The condition which occurs when in bothway operation two exchanges attempt to seize the same circuit at approximately the same time.

Eigenbereich

Zum Eigenbereich eines SP gehören definitionsgemäß alle SP, für die die nachfolgend aufgeführten Prozeduren des Signalling network management vollständig erfüllt werden:

Transfer prohibited/allowed, Forced/Controlled rerouting, Route set test.

Dies sind daher alle SP,

- die von dem SP über Sprechwegbündel direkt erreicht werden
- und im Ausnahmefall SP,
 - die von dem SP über ZZK-Wege direkt erreicht werden
 - für die der SP quasi assoziierte Link-by-Link Zeichengabe durchführt,
 - aus planerischen und betrieblichen Gründen können zusätzliche SP im Eigenbereich liegen.

emergency changeover (Notfall-Lastübernahme)

A modified changeover procedure to be used whenever the normal one cannot be accomplished, i.e. in case of some failures in the signalling terminal equipment or in case of inaccessibility between the two involved signalling points.

Ende-zu-Ende Zeichengabetransaktion

Zeichengabetransaktion, die sich auf zwei Prozesse in zwei verschiedenen Zeichengabepunkten bezieht. Sie wird vorübergehend für einen Ende-zu-Ende Nachrichtenaustausch aufgebaut.

error burst

A group of bits in which two successive erroneous bits are always separated by less than a given number (x) of correct bits. The number x should be specified when describing an error burst.

Note - The last erroneous bit in a burst and the first erroneous bit in the following burst are accordingly separated by x correct bits or more.

fill-in signal unit (Füllzeicheneinheit)

A signal unit containing only error control and delimitation information, which is transmitted when there are no message signal units or link status signal units to be transmitted.

flag (Flagge, Trennfeld, Trennmuster)

The unique pattern on the signalling data link used to delimit a signal unit.

forced rerouting (Erzwungene Lastumschaltung)

A procedure of transferring signalling traffic from one signalling route to another, when the signalling route in use fails or is required to be cleared of traffic.

forward indicator bit (Vorwärtskennungsbit)

A bit in a signal unit which indicates the start of a retransmission cycle.

forward sequence number (Vorwärtsfolgenummer)

A signal unit used to identify the transmitted message signal units.

Fremdbereich

Alle SP, die nicht im Eigenbereich liegen, gehören zum Fremdbereich.

Gatewayvermittlungsstelle

Eine Vermittlungsstelle in einer Verbindung, in der in ein anderes Nutzkanal- oder Zeichengabenetz mit einem anderen Numerierungsplan übergegangen wird.

inactive signalling link

A signalling link which has been deactivated and cannot therefore carry signalling traffic.

initial alignment (Anfangssynchronisation)

A procedure by which a signalling link becomes able to carry signalling traffic either for the first time or after a failure has occurred.

initial signal unit alignment

Signal unit alignment applicable to activation and to restoration of the link

integrated digital network (Integriertes digitales Netz)

A network in which connections established by digital switching are used for the transmission of digital signals.

integrated services digital network (ISDN)

An integrated digital network in which the same digital switches and digital paths are used to establish connections for different services, for example, telephony, data.

interruption control (Pilotüberwachung)

A system which monitors a pilot for interruptions on FDM systems and which transmits an indication to the switching equipment.

label (Sprechkreisadresse)

Information within a signalling message used to identify typically the particular circuit, call or management transaction to which the message is related.

length indicator (Längenkenung)

A six bit field which differentiates between message signal units, link status signal units and fill-in signal units and in the case that its binary value is less than 63 indicates the length of a signal unit.

link status signal unit

A signal unit which contains status information about the signalling link in which it is transmitted.

load sharing (general) (Lastteilung)

A process by which signalling traffic is distributed over two or more signalling or message routes, in view of traffic equalization or security.

Lokale Referenz

Ein Parameter in einer Nachricht des Transportfunktionsteils, der eindeutig eine Ende-zu-Ende Zeichengabetransaktion in einer der beiden beteiligten Vermittlungsstellen identifiziert.

long-term bit error rate (Langzeit-Bitfehlerrate)

Bit error rate measured over a sufficiently long time period, e. g. one month.

medium-term bit error rate

Bit error rate that can be encountered for relatively short time periods, e. g. some minutes, due to temporary malfunctions of, for example, transmission equipment.

Meldung

Eine Information (Primitive), die von einer niedrigeren Funktionsebene empfangen wird.

message signal unit

(Nachrichten-Zeicheneinheit)

A signal unit containing a service information octet and a signalling information field which is retransmitted by the signalling link control if it is received in error.

Message Transfer Part (Nachrichtentransferteil)

The functional part of a common channel signalling system which transfers signalling messages as required by all the users, and which performs the necessary subsidiary functions, for example error control and signalling security.

national indicator (Nationalkennung)

Information within a signalling message which permits typically a distinction to be made between national and international messages.

nonassociated mode (of signalling) (nichtassoziierte Betriebsweise)

The mode where messages for a signalling relation involving two (nonadjacent) signalling points are conveyed, between those signalling points, over two or more signalling links in tandem passing through one or more signalling transfer points.

No.7 exchange (Nr.7-Vermittlungsstelle, Nr.7-VSt)

An exchange utilizing Signalling System No.7.

No.7 exchange - first (erste Nr.7-Vermittlungsstelle)

The exchange closest to the calling party in each No.7 section of a connection where, unless it is the calling party's exchange, interworking with other signalling systems takes place.

No.7 exchange - last (letzte Nr.7-Vermittlungsstelle)

The exchange closest to the called party in each No.7 connection where, unless it is the called party's exchange, interworking with other signalling systems takes place.

normal routing (of signalling)

The routing of a given signalling traffic flow in normal conditions (i. e. in the absence of failures).

originating point code (Ursprungspunktkode)

A part of the label in a signalling message which uniquely identifies, in a signalling network, the (signalling) originating point of the message.

Parameter

Ein Informationselement in einer Nachricht des "Anwenderteils für ISDN" oder des "Transportfunktionsteils".

pilot (Pilot)

Sinusoidal signal transmitted over analogue FDM links for regulation and supervision purposes.

preventive cyclic retransmission (error control) method (Fehlerkorrektur durch vorbeugende zyklische Wiederholung)

A noncompelled, positive acknowledgement, cyclic retransmission forward error correction system.

Primitive (Schnittstellenelement)

Eine Information, die zwischen benachbarten Funktionsebenen in einem Zeichengabepunkt ausgetauscht wird.

processor outage (Prozessorausfall)

A situation in which a signalling link becomes unavailable, due to factors at a functional level higher than level 2. This may be because of, for example, a central processor failure. It may also be due to a manually initiated blocking of an individual signalling link.

quasi-associated mode (of signalling) (quasi-assoziierte Betriebsweise)

A nonassociated mode (of signalling) in which the (signalling) message route is determined basically, for each signalling message, by information contained in this message (namely in its routing label) and is fixed in normal operation.

random errors

Errors distributed over the digital signal so that they can be considered statistically independent from each other.

retransmission buffer (Wiederholpeicher)

Storage in the signalling link control for signal units transmitted but not yet positively acknowledged.

retrieval

The process of transferring all those messages in the retransmission buffer of a signalling link (A), which have not yet been positively acknowledged, to the transmission buffers of alternative signalling links.

routing label (Routing-Adresse)

The part of the message label that is used for message routing in the signalling network. It includes the destination point code, the originating point code and the signalling link selection field.

service indicator (Dienstkennung)

Information within a signalling message identifying the user to which the message belongs.

service information (octet) (Dienstinformationsoktett)

Eight bits, contained in a message signal unit, comprising the service indicator and the sub-service field.

signal unit (Zeicheneinheit)

A group of bits forming a separately transferable entity used to convey information on a signalling link.

signal unit alignment (Zeichensynchronisation)

Signal unit alignment exists when flags are received at intervals which correspond to integral numbers of octets and which fall within certain upper and lower limits.

signal unit error rate monitoring (Zeichenfehlerratenüberwachung)

A procedure by which the error rate of an active signalling link is measured on the basis of a count of correctly checking and erroneous signal units.

(signalling) destination point (Zielpunktcode)

A signalling point to which a message is destined.

signalling information (field) (Zeichengabeinformationsfeld)

The bits of a message signal unit which carry information particular to a certain user transaction and always contain a label.

signalling link (Zeichengabestrecke)

A transmission means which consists of a signalling data link and its transfer control functions, used for reliable transfer of a signalling message.

signalling link blocking (Sperrung einer Zeichengabestrecke)

An event causing the unavailability of a signalling link, typically consisting in a "processor outage" condition at one end of that signalling link.

signalling link code (Zeichengabestreckenkode)

A field of the label in the signalling network management messages, which indicates the particular signalling link to which the message refers among those interconnecting the two involved signalling points.

signalling link error monitoring

This comprises two functions initial alignment error rate monitoring and signal unit error rate monitoring.

signalling link failure (Zeichengabestreckenausfall)

An event causing the unavailability of a signalling link, typically consisting in a failure in signalling terminal equipment or in the signalling data link.

signalling link group

A set of signalling links directly connecting two signalling points and having the same physical characteristics (bit rate, propagation delay, etc.).

signalling link management functions
(Zeichengabestrecken-Managementfunktionen)

Functions that control and take actions, when required, to preserve integrity of locally connected signalling links, e. g. by reconfiguration of the signalling link sets.

signalling link restoration

An event consisting in the completion of the initial alignment procedure on a signalling link following the removal of the previous causes of failure; if no other causes of unavailability exist (i. e. a signalling link blocked condition) then the signalling link becomes available.

signalling link selection field (Zeichengabestrecken-Auswahlfeld)

A field of the routing label which is typically used by the message routing function to perform load sharing among different signalling links/link sets.

signalling link set (Zeichengabestreckenbündel)

A set of signalling link(s) directly connecting two signalling points.

signalling link unblocking (Entsperren einer Zeichengabestrecke)

An event consisting in the removal of the previous causes of signalling link blocking; if no other causes of unavailability exist (i. e. a signalling link failed condition), then the signalling link becomes available.

signalling message (Zeichengabenachricht)

An assembly of signalling information pertaining to a call, management transaction, etc. that is transferred as an entity.

(signalling) message discrimination (Nachrichtenunterscheidung)

The process which decides, for each incoming message, whether the signalling point is destination point or if it should act as signalling transfer point for that message and accordingly, whether the message should be handled to (signalling) message distribution or to (signalling) message routing functions.

(signalling) message distribution (Nachrichtenverteilung)

The process of determining, upon receipt of a signalling message at its destination point, to which User Part the signalling message is to be delivered.

signalling message handling functions (Nachrichtenbehandlung)

Functions that, at the actual transfer of a message, direct the message to the proper signalling link or User Part.

(signalling) message route

The signalling link or consecutive links connected in tandem that are used to convey a signalling message from an originating point to its destination point.

(signalling) message routing

The process for selecting, for each signalling message to be sent, the signalling link to be used.

signalling network (Zeichengabenetz)

A network used for signalling by one or more users and consisting of signalling points and connecting signalling links.

signalling network functions (Zeichengabenetzfunktionen)

The functions which are performed by the Message Transfer Part at level 3 and are common to, and independent of, the operation of individual signalling links. They include the signalling message handling functions and the signalling network management functions.

signalling network management functions
(Zeichengabenetz-Managementfunktionen)

Functions that, on the basis of predetermined data and information about the status of the signalling network, control the current message routing and configuration of signalling network facilities.

(signalling) originating point (Ursprungspunkt)

A signalling point in which a message is generated.

signalling point (Zeichengabepunkt)

A node in a signalling network which either originates and receives signalling messages, or transfers signalling messages from one signalling link to another, or both.

signalling point code (Zeichengabepunktkode)

A binary code uniquely identifying a signalling point in a signalling network. This code is used, according to its position in the label, either as destination point code or as originating point code.

signalling relation (Zeichengabebeziehung)

A relation between two signalling points involving the possibility of information interchange between corresponding User-Part functions.

signalling route (Zeichengabeweg)

A predetermined path described by a succession of signalling points that may be traversed by signalling messages directed by a signalling point towards a specific destination point.

signalling route management functions (Zeichengabewegemanagement)

Functions that transfer information about changes in the availability of signalling routes in the signalling network.

signalling route-set-test procedure (Zeichengabewege-Testprozedur)

A procedure, included in the signalling route management which is used to test the availability of a given signalling route, previously declared unavailable.

(signalling) traffic flow control (Überlastabwehr)

Actions and procedures intended to limit signalling traffic at its source in the case when the signalling network is not capable of transferring all signalling traffic offered by the User-Parts, because of network failures or overload situations.

signalling traffic management functions (Zeichenverkehrsmanagement)

Functions that control and, when required, modify routing information used by the Message routing function and control the transfer of signalling traffic in a manner that avoids irregularities in message flow.

signalling transfer point (Zeichentransferpunkt)

A signalling point with the function of transferring signalling messages from one signalling link to another and considered exclusively from the viewpoint of the transfer.

Signifikante nationale Nummer

Die signifikante nationale Nummer enthält im Normalfall die

- Ortsnetzkenzahl (ohne Verkehrsausscheidungsziffer) und
- Teilnehmerrufnummer (einschließlich evtl. vorhandener EAZ)

oder in besonderen Fällen (z. B. Netzübergänge, Dienstzugänge, usw.)

- Zugangsziffern (ohne evtl. Verkehrsausscheidungsziffer) und
- Folgeziffern (Mobilrufnummer, S130-KurzkennNr., usw.)

Weiterhin kann die signifikante nationale Nummer bezüglich der weniger bedeutenden Ziffern unvollständig sein.

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status field (Statusfeld)

The bits of a link status signal unit which indicate one of the major signalling link states.

Steuerteil für Zeichengabetransaktionen (Signalling Connection Control Part)

Der funktionale Teil im Zeichengabesystem Nr.7 (ZGS Nr.7), der die Zusatzfunktion zum Nachrichtentransferteil (Message Transfer Part) bereitstellt, die erforderlich sind, um sowohl nutzkanalorientierte als auch nutzkanalunabhängige Nachrichten in einem ZGS Nr.7-Netz zu übertragen (z.B. für Ende-zu-Ende-Zeichengabe oder für Nachrichtenaustausch zwischen Vermittlungsstellen und speziellen Netzzentren).

Telephone-User-Part (Anwenderteil für Fernsprechen)

The User-Part specified for telephone services.

transfer-allowed (procedure) (Transfer-erlaubt-Prozedur)

A procedure, included in the signalling route management, which is used to inform a signalling point that a signalling route has become available.

transfer-prohibited (procedure) (Transfer-verboden-Prozedur)

A procedure, included in the signalling route management, which is used to inform a signalling point of the unavailability of a signalling route.

Transitvermittlungsstelle

Eine Vermittlungsstelle im Zuge eines nationalen Verbindungsabschnitts, in der der Nutzkanal durchgeschaltet wird und die sowohl in kommender als auch in gehender Richtung den gleichen Anwenderteil des ZGS Nr.7 verwendet.

Transportfunktionsteil

Diejenige Teilmenge der Funktionen des "Steuerteils für Zeichengabetransaktionen", die für die Erfüllung der derzeitigen Anforderungen an den "Anwenderteil für ISDN" benötigt wird.

Übergangsvermittlungsstelle

Eine Vermittlungsstelle im Zuge eines nationalen Verbindungsabschnitts, in der auf einen anderen Anwenderteil des ZGS Nr.7 oder auf IKZ übergegangen wird, jedoch kein anderer Numerierungsplan zu berücksichtigen ist.

User-Part (Anwenderteil)

A functional part of the common channel signalling system which transfers signalling messages via the Message Transfer Part. Different types of User-Parts exist (e. g. for telephone and data services), each of which is specified to a particular use of the signalling system.

user (of the signalling system)

A functional entity, typically a telecommunication service, which uses a signalling network to transfer information.

Wahlendemeldung

Als Wahlendemeldung wird sowohl eine "Address Complete Message" als auch die Nr.7 Nachricht "Wahlende, IKZ 50" bezeichnet.

3 Abkürzungen

	Bedeutung	
ACC	Automatic Congestion Control	*
ACL	Automatic Congestion Level	*
ACM	Address Complete Message	
ADC	Address complete, charge	
ADI	Address incomplete signal	
ADN	Address complete, no charge	
ADX	Address complete, coin box	
AERM	Alignment error rate monitor	
AFC	Address complete, charge, subscriber free	
AFN	Address complete, no charge, subscriber free	
AFX	Address complete, coin box, subscriber free	
AGRU	Automatische Ansage geänderter Rufnummern	
ALERT	Alerting (D-Kanal-Protokoll-Nachricht)	
AMeBUE	Automatische Meßübertragung	
ANC	Answer signal, charge	
ANIS	Analoger Teilnehmer am ISDN	
ANN	Answer signal, no charge	
ANU	Answer signal, unqualified	
AOZ	Address complete, ohne Zusatzinformation	
APrUe	Automatische Prüfübertragung	
ASZ	Aufschaltezeichen	
ATP	Access Transport	*
AWS	Anrufweitzerschaltung	*
BCi	Backward Call Indicator	*
Bez	Besetztzeichen	*
BAG	Circuit Group Blocking Acknowledgement Message	
BIB	Backward indicator bit	
BLA	Blocking Acknowledgement Signal/Message	
BLG	Circuit Group Blocking Message	
BLO	Blocking signal	
BSM	Backward Set-up Message	
BSN	Backward sequence number	
BSNR	Backward sequence number received	
BSNT	Backward sequence number of next SU to be transmitted	
Btx	Bildschirmtext	
CaRe	Call Reference für Transaktionen im D-Kanal	
CBA	Changeback acknowledgement signal	
CBD	Changeback declaration signal	
CBK	Clear-back signal	
CC	Connection Confirm	
CCBS	Automatischer Rückruf bei Besetzt (Completion of call to a busy subscriber)	
CCF	Continuity-failure signal	
CCI	Continuity check incoming	
CdPA	Called Party Address	*
CgPA	Calling Party Address	*
CgPC	Calling Party Category	*
CCITT	Comit e Consultatif Internationale Telegraphique et Telephonique	
CCM	Circuit Supervision Message	
CCO	Continuity check outgoing	
CCR	Continuity Check Request Signal/Message	
CCS	Common channel signalling	
CFL	Call failure signal	

CGC	Circuit group congestion	
CGM	Circuit Group Supervision Message	
CHG	Charging Message	
CHM	Changeover and Changeback Messages	
CIC	Circuit identification code	
CID	Connection Identification	
CIDa	Connection Identification in der Ursprungsvermittlungsstelle	
CIDb	Connection Identification in der Zielvermittlungsstelle	
CIR	Calling-line-identity-request signal	
CK	Check bits	
CLF	Clear-forward signal	
CLI	Calling Line Identity Message	
CLU	Calling-line-identity-unavailable signal	
CNP	Connection-not-possible signal	
CNS	Connection-not-successful signal	
COA	Changeover acknowledgement signal	
CON	Connect Message	*
ConA	Connected Address	*
CONN	Connect (D-Kanal-Protokoll-Nachricht)	
CONN ACK	Connect Acknowledge (D-Kanal-Protokoll-Nachricht)	
COT	Continuity signal/message	
COTi	Continuity Indicator	*
CPC	Call processing control	
CR	Connection Request	*
CREF	Connection Refused	
CRI	Continuity recheck incoming	
CRO	Continuity recheck outgoing	
CRQ	Closed User Group Selection & Validation Request Message	
CRS	Closed User Group Selection & Validation Response Message	
CSM	Call Supervision Message	
CSS	Connection-successful signal	
CUG	Closed User Group	*
DAEDR	Delimitation, alignment, error detection (reception)	
DAEDT	Delimitation, alignment, error detection (transmitting)	
DCE	Data circuit terminating equipment	
DEE	Datenendeinrichtung	
DET	Detach (D-Kanal-Protokoll-Nachricht)	
DISC	Disconnect (D-Kanal-Protokoll-Nachricht)	
DIV	Digitale Vermittlungstechnik	
DIVF	Digitale Vermittlungstechnik für den Ferndienst	
DIVO	Digitale Vermittlungstechnik für den Ortsdienst	
DIVO(ISDN)	Digitale Vermittlungstechnik für den Ortsdienst mit ISDN-Leistungsmerkmalen	
DLC	Signalling-data-link-connection-order signal	
DLM	Signalling-data-link-connection-order message	
DM	Dienstmerkmal	
DPC	Destination point code	
DSV2	Digital signalverbindung für 2-Mbit/s-Signale	
DT1	Data Form Class 1	
DUP	Data User Part	
EAM	Extended answer message indication	
EAZ	Endgeräteauswahlziffer	
ECA	Emergency changeover acknowledgement signal	
ECM	Emergency changeover message	
ECO	Emergency changeover order signal	
E-DSS1	European Digital Subscriber Signalling Number 1	

EHZ	Einhängezeichen	
EMD	Edelmetall-Motor-Drehwähler	
EvI	Event Information	*
EUM	Extended-unsuccessful-backward set-up information message indication	
F	Flag	
FAC	Facility (D-Kanal-Protokoll-Nachricht)	
FACACK	Facility Acknowledge (D-Kanal-Protokoll-Nachricht)	
FACD	Facility Accepted Message	
FAC REG	Facility Register (D-Kanal-Protokoll-Nachricht)	
FAC REJ	Facility Reject (D-Kanal-Protokoll-Nachricht)	
FAM	Forward Address Message	
Fax	Telefax	
FCi	Forward Call Indicator	*
FCM	Signalling Traffic Flow Control Messages	
FDE	Facility Deactivated Message	
FDM	Frequency division multiplex Fe Fernsprechen	
FeAfD	Fernsprechauftragsdienst	
FGW	Ferngruppenwähler	
FIB	Forward indicator bit	
FIN	Facility Information Message	
FISU	Fill-in signal unit	
FKZ	Fernkennzeichen	
FOT	Forward-transfer signal	
FPrPl 68	Fernprüfplatz 68	
FRD	Fernmelderechnungsdienst	
FRJ	Facility Rejected Message	
FRL	Forced release signal	
FRQ	Facility Request Message	
FSM	Forward Set-up Message	
FSN	Forward sequence number	
FVI	Fangvorimpuls	*
FZE	Für zukünftige Erweiterung	
GAS	Gassenbesetzt, Auslösen durch Supervision Point	
GEDAN	Gerät zur dezentralen Anrufweitzerschaltung	
GRA	Circuit Group Reset Acknowledgement Message	
GRM	Circuit Group Supervision Messages	
GRQ	General Request Message	
GRS	Circuit Group Reset Message	
GSM	General Forward Set-up Information Message	
GUE	Gebührenübernahme	
HAs	Hauptanschluß	
HBA	Hardware Failure Oriented Group Blocking Acknowledgement Message	
HGB	Hardware Failure Oriented Group Blocking Message	
HGU	Hardware Failure Oriented Group Unblocking Message	
HiWNR	Hilfswegnummer	
Hl	Hilfsleitung	
HMDC	Message discrimination	
HMDT	Message distribution	
HMRT	Message routing	
HO	Heading code	
HUA	Hardware Failure Oriented Group Unblocking Acknowledgement Message	
H1	Heading code	

IAC	Initial alignment control
IAM	Initial Address Message
ICM	In Call Modification
IDE	Identifizieren Ende
IDF	Identifizieren
IKZ	Impulszeichen
INF	Information Message
INFO	Information (D-Kanal-Protokoll-Nachricht)
IRM	Information Request Message
ISDN	Integrated Services Digital Network
ISDN-UP	Anwenderteil für ISDN-Zwecke (ISDN-User-Part)
ISP	International signalling point
IW	Interworking
KBN	Kennungs- und Betriebsartnummer
KDE	Kommunikationsdatenerfassung
KRI	Kurzer Rückimpuls
L1	Level 1
L2	Level 2
L3	Level 3
L4	Level 4
LI	Length indicator
LLSC	Link set control
LOS	Line-out-of-service signal
LR	Lokale Referenz
LRa	Lokale Referenz Nummer der Ursprungsvermittlungsstelle
LRb	Lokale Referenz Nummer der Zielvermittlungsstelle
LRI	Langer Rückimpuls
LRZ	Langes Rückwärtszeichen
LSAC	Signalling link activity control
LSC	Link state control
LSDA	Signalling data link allocation
LSDS	Stand-by data link selection
LSLA	Signalling link activation
LSLD	Signalling link deactivation
LSLR	Signalling link restoration
LSSU	Link status signal units
LSTA	Signalling terminal allocation
MBA	Maintenance Oriented Group Blocking Acknowledgement Message
MCI	Malicious Call Identification
MGB	Maintenance Oriented Group Blocking Message
MGMT	Management system
MGU	Maintenance Oriented Group Unblocking Message
MGZ	Meßgangziffer
MML	Man Machine Language
MLO	Mit der Längenangabe Null
MSU	Message signal unit
MSy 80	Meßsystem 80
MTP	Message Transfer Part
MUA	Maintenance Oriented Group Unblocking Acknowledgement Message
MWNR	Meßwegnummer

nCgPC	National Calling Party Category	*
NACK	Negative acknowledgement	
NANA	Nationale Nachricht	
NAPA	Nationaler Parameter	
NBM	National Backward Message	
NFM	National Forward Message	
NK	Nutzkanal	
NNC	National-network-congestion signal	
NNV	National nicht verwendet	
NoCi	Nature of Connection Indicator	*
NSP	National signalling point	
NSt	Nebenstelle	
NUB	National Unsuccessful Backward Set-up Information Message	
NW	Normalwert	*
O/DP	Originating point/destination point	
OAM	Bedienen, Verwalten und Unterhalten (Operation and Maintenance)	
OBCi	Optional Backward Call Indicator	*
OCdA	Original Called Address	*
OFCi	Optional Forward Call Indicator	*
ONKZ	Ortsnetzkennzahl	
OPC	Originating point code	
OVSt	Ortsvermittlungsstelle	
PAU	Pause Message	
PCM	Pulse code modulation	
PCR	Preventive cyclic retransmission	
POC	Processor outage control	
PrGW	Prüfgruppenwähler	
PrLW	Prüfleitungswähler	
PrT 59	Prüftechnik 59	
RAN	Reanswer signal	
RC	Reception control	
RdgA	Redirecting Address	*
RdnA	Redirection Address	*
RdnI	Redirection Information	*
REG ACK	Register Acknowledge (D-Kanal-Protokoll-Nachricht)	
REG IND	Register Indication (D-Kanal-Protokoll-Nachricht)	
REL	Release Message	
REL	Release (D-Kanal-Protokoll-Nachricht)	
REL ACK	Release Acknowledge (D-Kanal-Protokoll-Nachricht)	
RES	Resume Message	
RES	Resume (D-Kanal-Protokoll-Nachricht)	
RES ACK	Resume Acknowledge (D-Kanal-Protokoll-Nachricht)	
RGA	Reset Circuit Group Acknowledgement Message	
RKK	Rückwärtszeichen 150 ms Impuls/250 ms Pause/150 ms Impuls	
RL	Rückwärtszeichen 750 ms Impuls	
RLC	Release Complete (Message)	
RLG	Release-guard signal	
RLK	Rückwärtszeichen 750 ms Impuls/250 ms Pause/150 ms Impuls	
RLL	Rückwärtszeichen 750 ms Impuls/250 ms Pause/750 ms Impuls	
RLSD	Released Message	
RSC	Reset Circuit Signal/Message	
RSG	Reset Circuit Group Message	
RSM	Signalling Route Set Test Message	
RSRT	Signalling route set test control	

RST	Signalling-route-set-test signal	
RTAC	Transfer allowed control	
RTB	Retransmission buffer	
RTPC	Transfer prohibited control	
RWZ	Rückwärtszeichen	*
SAM	Subsequent Address Message	
SAO	Subsequent address message with one signal	
SBM	Successful Backward Set-up Information Message	
SCCP	Steuerteil für Zeichengabetransaktionen (Signalling Connection Control Part)	
SDL	Functional specification and description language	
SEC	Switching-equipment-congestion signal	
SETUP	Setup (D-Kanal-Protokoll-Nachricht)	
SETUP ACK	Setup Acknowledge (D-Kanal-Protokoll-Nachricht)	
SF	Status field	
SI	Service indicator	
SIE	Status indication "emergency terminal status"	
SIF	Signal information field	
SIN	Status indication "normal terminal status" (MTP)	
SIN	Service Indicator (ISDN UP)	
SIO	Service Information Octet	
SIO	Status indication "out of alignment"	
SIOS	Status indication "out of service"	
SIPO	Status indication "processor outage"	
SLC	Signalling link code	
SLM	Signalling link management	
SLS	Signalling link selection code	
SLTC	Signalling link test control	
SLTM	Signalling Link Test Message	
SMH	Signalling message handling	
SP	Signalling point	
SPC	Zeichengabepunkt-Kode (Signalling Point Code)	
SPCa	Zeichengabepunkt-Kode der Ursprungsvermittlungsstelle	
SPRC	Signalling procedure control	
SPU	Signalling Point Unknown Message	
SPV	Semipermanente Verbindung	
SRM	Signalling route management	
SSB	Subscriber-busy signal (electrical)	
SSF	Sub-service field	
SSN	Sub-service Number	
SST	Send-special-information-tone signal	
ST	End-of-pulsing signal	
STAT	Status (D-Kanal-Protokoll-Nachricht)	
STI	Steuerinformation	
STM	Signalling traffic management	
STP	Signalling transfer point	
SU	Signal unit	
SuA	Subsequent Address	*
SUERM	Signal unit error rate monitor	
SUSP	Suspend (D-Kanal-Protokoll-Nachricht)	
SUSP ACK	Suspend Acknowledge (D-Kanal-Protokoll-Nachricht)	
SWFD	Selbstwählerndienst	

TAS	Teilnehmer besetzt, Auslösen durch supervision point	
TB	Transmission buffer	
TBI	Teilnehmerbesetzt IKZ 50	*
TCBC	Changeback control	
TCOC	Changeover control	
TCRC	Controlled rerouting control	
TE	Endgerät (Terminal Equipment)	
TF	Transportfunktionsteil	
TFA	Transfer-allowed signal	
TFC	Transfer Controlled Message	
TFM	Transfer Prohibited and Transfer Allowed Messages	
TFRC	Forced rerouting control	
TL	Technische Lieferbedingungen	
TLAC	Link availability control	
Tln	Teilnehmer	
TMR	Transmission Medium Requirements	*
TSFC	Signalling traffic flow control	
TSRC	Signalling routing control	
TUP	Telephone User Part	
TXC	Transmission control	
tZGT	Ende-zu-Ende Zeichengabetransaktion	
UAG	Circuit Group Unblocking Acknowledgement Message	
UBA	Unblocking-acknowledgement signal/message	
UBG	Circuit Group Unblocking Message	
UBL	Unblocking Signal/Message	
UBM	Unsuccessful Backward Set-up Information Message	
UC	User Class	
UIM	User Information Message	
UNN	Unallocated-national-number signal	
UP	User-Part	
USI	User Service Information	*
USR	User-to-User Information Message	*
UtU	User-to-User	*
UUi	User-to-User Indicator	*
UUI	User-to-User Information	*
VSt	Vermittlungsstelle	
VW	Versionswert	*
WEI	Wahlende IKZ 50	
ZGS	Zeichengabesystem	
ZIG	Zählimpulsgeber	
ZIP	Zählimpuls	
ZUNR	Zugangsnummer	