



# APPENDIX **A**

## NOA and NPI Codes, CPC and TMR Values

**Revised: November 23, 2009, OL-1141-14**

The following sections contain the nature of address (NOA) and numbering plan indicator (NPI) codes for the result types listed in [Table 1-1 on page 1-11](#). In addition, the internal calling party category (CPC) and transmission medium requirement (TMR) values are also listed.

### NOA Codes

The NOA codes listed in the following sections define protocol-specific NOA values and the unique mappings to numerical values supported by each protocol. An “X” in any of the variant cells in the following tables indicates that the specified mapping is supported by that protocol variant.

The NOA codes described in the following tables include:

- [Internal Call Context NOA Values—Table A-1 on page A-1 and A-2](#)
- [ANSI SS7 NOA Values—Table A-2 on page A-3](#)
- [PRI NOA Values—Table A-3 on page A-4](#)
- [Q.761 NOA Values—Table A-4 on page A-5 and A-5](#)
- [Q.767 Call Context NOA Values—Table A-5 on page A-6](#)

### Internal

[Table A-1](#) describes the internal Call Context NOA values and corresponding numerical values.

**Table A-1** *Internal Call Context NOA Values*

Call Context NOA Mnemonic	Numerical Value
NOA_NONE	1
NOA_UNKNOWN	2
NOA_SUBSCRIBER	3
NOA_NATIONAL	4
NOA_INTERNATIONAL	5
NOA_NETWORK	6
NOA_MERIDIAN	7

Table A-1 Internal Call Context NOA Values (continued)

Call Context NOA Mnemonic	Numerical Value
NOA_ABBR	8
NOA_UNIQUE_3DIG_NAT_NUM	9
NOA_ANI	10
NOA_NO_ANI_REC'D	11
NOA_NON_UNIQUE_SUBSCRIBER	12
NOA_NON_UNIQUE_NATIONAL	13
NOA_NON_UNIQUE_INTERNATIONAL	14
NOA_OPRREQ_TREATED	15
NOA_OPRREQ_SUBSCRIBER	16
NOA_OPRREQ_NATIONAL	17
NOA_OPRREQ_INTERNATIONAL	18
NOA_OPRREQ_NO_NUM	19
NOA_CARRIER_NO_NUM	20
NOA_950_CALL	21
NOA_TEST_LINE_CODE	22
NOA_INT_INBOUND	23
NOA_NAT_OR_INTL_CARRIER_ACC_CODE_INC	24
NOA_CELL_GLOBAL_ID_GSM	25
NOA_CELL_GLOBAL_ID_NMT_900	26
NOA_CELL_GLOBAL_ID_NMT_450	27
NOA_CELL_GLOBAL_ID_AUTONET	28
NOA_PORTED_NUMBER	29
NOA_PISN_SPECIFIC_NUMBER	30
NOA_UK_SPECIFIC_ADDRESS	31
NOA_SPARE	32
NOA_MCI_VNET	33
NOA_INTERNATIONAL_OPERATOR_TO_OPERATOR_OUTSIDE_WZI	34
NOA_INTERNATIONAL_OPERATOR_TO_OPERATOR_INSIDE_WZI	35
NOA_DIRECT_TERMINATION_OVERFLOW	36
NOA_ISN_EXTENDED_INTERNATIONAL_TERMINATION	37
NOA_TRANSFER_ISN_TO_ISN	38
NOA_CREDIT_CARD	39
NOA_DEFINED_IN_SSUTR	40
NOA_DEFINED_IN_SSUTR2	41
RESERVED	42

**Table A-1 Internal Call Context NOA Values (continued)**

Call Context NOA Mnemonic	Numerical Value
NOA_DISCARDED	43
NOA_NETWORK_RN_CONCAT_WITH_CDPN	44
NOA_NAT_NUM_WITH_SELECT_OF_CARR	45
NOA_INT_NUM_WITH_SELECT_OF_CARR	46
NOA_NATIONAL_SPARE_2	47
NOA_PORTED_NUMBER_OR_SCREENED_FOR_PORTING	48
NOA_SPECIAL_NUMBER	49
NOA_NATL_NUM_TRANSIT_NETWORK_SELECT	50
NOA_INTL_NUM_TRANSIT_NETWORK_SELECT	51
NOA_SPAIN	52
NOA_PARTIAL_CALLING_LINE_ID	53
NOA_NETWORK_RN_NSN_FORMAT	54
NOA_NETWORK_RN_NETWORK_SPECIFIC_FORMAT	55

## ANSI SS7

Table A-2 describes the NOA values and corresponding bit code patterns for the ANSI SS7 protocol.

**Table A-2 ANSI SS7 NOA Values**

ANSI Call Context NOA Values	Protocol Specific Binary Code Pattern	Standard			
		Bell	MCI	Sprint	
NOA_950_CALL	1110110	X	X	X	X
NOA_ABBR	0000110		X	X	X
NOA_ANI	1100111		X		
NOA_CARRIER_NO_NUM	1110101	X	X	X	X
NOA_CREDIT_CARD	1100110		X		
NOA_DIRECT_TERMINATION_OVERFLOW	1111100		X		
NOA_INTERNATIONAL	0000100	X	X	X	X
NOA_INTERNATIONAL_OPERATOR_TO_OPERATOR_INSIDE_WZI	1111011		X		
NOA_INTERNATIONAL_OPERATOR_TO_OPERATOR_OUTSIDE_WZI	1111010		X		
NOA_ISN_EXTENDED_INTERNATIONAL_TERMINATION	1111101		X		
NOA_MCI_VNET	1111000		X		
NOA_NATIONAL_DEFAULT	0000011	X	X	X	X
NOA_NO_ANI_REC'D	1101000		X		

**Table A-2 ANSI SS7 NOA Values (continued)**

NOA_NON_UNIQUE_INTERNATIONAL	1111001	X
NOA_NON_UNIQUE_INTERNATIONAL	1110100	X X X
NOA_NON_UNIQUE_NATIONAL	1110011	X X X
NOA_NON_UNIQUE_NATIONAL	1111000	X
NOA_NON_UNIQUE_SUBSCRIBER	1110001	X X X
NOA_NONE	0000000	X X X X
NOA_OPRREQ_INTERNATIONAL	1110011	X X X X
NOA_OPRREQ_NATIONAL	1110010	X X X X
NOA_OPRREQ_NO_NUM	1110100	X X X X
NOA_OPRREQ_SUBSCRIBER	1110001	X X X X
NOA_SUBSCRIBER	0000001	X X X X
NOA_TEST_LINE_CODE	1110111	X X X X
NOA_TRANSFER_ISN_TO_ISN	1111110	X

## PRI

Table A-3 describes the NOA values and corresponding bit code patterns related to the PRI protocol. In keeping with the PRI’s MDL program definition, the bit codes are listed with decimal values.

**Table A-3 PRI NOA Values**

PRI Call Context NOA Values	Protocol Specific Code	ETSI 300-102	ETSI 300-172 (OSIG)	AT&T TR41459	Bell	INSNet
NOA_UNKNOWN	0	X	X	X	X	X
NOA_INTERNATIONAL	1	X	X	X	X	
NOA_NATIONAL DEFAULT	2	X	X	X	X	
NOA_NETWORK	3	X	X	X		
NOA_SUBSCRIBER	4	X	X	X	X	
NOA_MERIDIAN	5	X	X			
NOA_ABBR	6	X	X			

PRI DEFAULT:NOA\_NATIONAL

INSNet DEFAULT:NOA\_UNKNOWN

## Q.761

Table A-4 describes the NOA values and corresponding bit code patterns for the Q.761 protocol.

Table A-4 Q.761 NOA Values

Q.761 Call Context NOA Values	Protocol Specific Binary Code Pattern	Standard Q.761	Australian Q.761	Finnish Q.761	Japanese Q761	Japanese ETS_300_356	Hong_Kong Q761	Belgian Mobistar	Korean Q761	ETS_300_356 and Japan	ETS_300_356 and Spanish	ETS_300_356_V3 and UK
NOA_950_CALL	1110110											
NOA_UNIQUE_3DIG_NAT_NUM	0000011	X	X									
NOA_ANI	1100111											
NOA_NO_ANI_REC'D	0000010	X	X									
NOA_CARRIER_NO_NUM	0000010	X	X									
NOA_CREDIT_CARD	1100110											
NOA_DIRECT_TERMINATION_OVERFLOW	1111100											
NOA_INT_INBOUND	0000100	X										X
NOA_INTERNATIONAL	0000100	X	X	X					X	X		
NOA_INTERNATIONAL_OPERATOR_TO_OPERATOR_NSIDE_WZI	1111011											
NOA_INTERNATIONAL_OPERATOR_TO_OPERATOR_OUTSIDE_WZI	1111010											
NOA_ISN_EXTENDED_INTERNATIONAL_TERMINATION	1111101											
NOA_MCI_VNET	1111000											
NOA_NATIONAL_DEFAULT	0000011	X	X	X	X	X			X	X		
NOA_NAT_OR_INTL_CARRIER_ACC_CODE_INC	0000010		X						X			
NOA_NETWORK	1111110				X						X	
NOA_NO_ANI_REC'D	1101000											
NOA_NON_UNIQUE_INTERNATIONAL	1111001											
NOA_NON_UNIQUE_INTERNATIONAL	0000100	X	X									
NOA_NON_UNIQUE_INTERNATIONAL	1110100											
NOA_NON_UNIQUE_NATIONAL	0000011	X	X									
NOA_NON_UNIQUE_NATIONAL	1110011											
NOA_NON_UNIQUE_NATIONAL	1111000											
NOA_NON_UNIQUE_SUBSCRIBER	0000001	X	X									
NOA_NON_UNIQUE_SUBSCRIBER	1110001											

Table A-4 Q.761 NOA Values (continued)

Q.761 Call Context NOA Values	Protocol Specific Binary Code Pattern	Standard Q.761	Australian Q.761	Finnish Q.761	Japanese Q761	Japanese ETS_300_356	Hong_Kong Q761	Belgian Mobistar	Korean Q761	ETS_300_356 and Japan	ETS_300_356 and Spanish	ETS_300_356_V3 and UK
NOA_NONE	0000000	X	X								X	
NOA_OPRREQ_INTERNATIONAL	0000100	X	X									
NOA_OPRREQ_NATIONAL	0000011		X									
NOA_OPRREQ_NO_NUM	0000010	X	X									
NOA_OPRREQ_SUBSCRIBER	0000001	X	X									
NOA_SUBSCRIBER	0000001	X				X			X	X		
NOA_TEST_LINE_CODE	1110111											
NOA_TRANSFER_ISN_TO_ISN	1111110											
NOA_UK_SPECIFIC_ADDRESS	1111110										X	
NOA_UNKNOWN	1110000	X				X						
NOA_UNKNOWN	0000010	X	X	X								

## Q.767

Table A-5 describes the NOA values and corresponding bit code patterns related to the Q.767 protocol.

Table A-5 Q.767 Call Context NOA Values

Q.767 Call Context NOA Values	Protocol Specific Binary Code Pattern	Standard	Italian	Russian	Spanish	Swedish	ETS-300_121 Polish
NOA_950_CALL	1110110						
NOA_ANI	1100111						
NOA_NO_ANI_REC'D	0000000	X			X		
NOA_CARRIER_NO_NUM	0000000	X					
NOA_CREDIT_CARD	1100110						
NOA_DIRECT_TERMINATION_OVERFLOW	1111100						
NOA_INT_INBOUND	0000100	X					
NOA_INTERNATIONAL	0000100	X				X	

Table A-5 Q.767 Call Context NOA Values (continued)

Q.767 Call Context NOA Values	Protocol Specific Binary Code Pattern	Standard	Italian	Russian	Spanish	Swedish	ETS-300_121 Polish
NOA_INTERNATIONAL_OPERATOR_TO_OPERATOR_INSIDE_WZI	1111011						
NOA_INTERNATIONAL_OPERATOR_TO_OPERATOR_OUTSIDE_WZI	1111010						
NOA_ISN_EXTENDED_INTERNATIONAL_TERMINATION	1111101						
NOA_MCI_VNET	1111000						
NOA_NATIONAL_DEFAULT	0000011		X X		X X X		
NOA_NO_ANI_REC'D	1101000						
NOA_UNIQUE_3DIG_NAT_NUM	0000011	X					
NOA_NON_UNIQUE_INTERNATIONAL	0000100	X					
NOA_NON_UNIQUE_INTERNATIONAL	1110100						
NOA_NON_UNIQUE_NATIONAL	0000011	X			X		
NOA_NON_UNIQUE_NATIONAL	1111000						
NOA_NON_UNIQUE_SUBSCRIBER	0000001				X		
NOA_NONE	0000000	X					
NOA_OPRREQ_NATIONAL	0000011	X			X		
NOA_OPRREQ_NO_NUM	0000000	X					
NOA_OPRREQ_SUBSCRIBER	0000001				X		
NOA_SPAIN	11111110				X		
NOA_SUBSCRIBER	0000001		X X		X		
NOA_TEST_LINE_CODE	1110111						
NOA_TRANSFER_ISN_TO_ISN	1111110						
NOA_UNKNOWN	0000010						X

## NPI Codes

The numbering plan indicator (NPI) codes listed in the following sections define protocol-specific NPI values and the unique mappings to numerical values supported by each protocol. An “X” in any of the variant cells in these tables indicates that the specified mapping is supported by that protocol variant.

The NPI codes described in the following tables include:

- [Internal NPI Values—Table A-6 on page A-8](#)
- [ANSI SS7 NPI Values—Table A-7 on page A-8](#)
- [PRI NPI Values—Table A-8 on page A-9](#)

## Internal

Table A-6 describes the internal (Call Context) NPI code values.

**Table A-6 Internal NPI Values**

Call Context NPI Mnemonic	Numerical Value
NPI_NONE	100
NPI_E164	101
NPI_DATA	102
NPI_TELEX	103
NPI_PNP	104
NPI_NATIONAL	105
NPI_TELEPHONY	106
NPI_MARITIME_MOBILE	107
NPI_LAND_MOBILE	108
NPI_ISDN_MOBILE	109

## ANSI SS7

Table A-7 describes the received protocol-specific bit code patterns to internal (Call Context) NPI value mappings supported by the ANSI SS7 protocol.

**Table A-7 ANSI SS7 NPI Values**

ANSI Call Context NPI Values	Bit Pattern				
		Standard	Bell	MCI	Sprint
NPI_NONE	000	X	X	X	
NPI_E164	001	X	X	X	
NPI_PNP	101	X	X	X	

NAPI2:NPI\_E164 DEFAULT

NAPI1:NPI\_NONE DEFAULT

## PRI

Table A-8 describes the received protocol-specific bit code patterns to internal (Call Context) NPI value mappings supported by the PRI protocol.

**Table A-8 PRI NPI Values**

<b>PRI Call Context NPI Values</b>	<b>Bit Pattern</b>	<b>ETSI 300-102</b>	<b>ETSI 300-172 (OSIG)</b>	<b>AT&amp;T TR41459</b>	<b>Bell</b>	<b>INS Net</b>
NOA_UNKNOWN	0000	X	X	X	X	X
NPI_E164 DEFAULT	0001	X	X	X	X	
NPI_DATA	0011	X	X		X	
NPI_TELEX	0100	X	X			
NOA_NATIONAL	1000	X	X			
NPI_PNP	1001	X	X	X		

DEFAULT: NPI\_E164

NAPI1: NPI\_NONE DEFAULT

## CPC Values

The Calling Party Category (CPC) internal values are listed in [Table A-9](#) and corresponding CPC description.

**Table A-9 Internal CPC Values**

<b>Internal CPC Value</b>	<b>Internal CPC Description</b>
0	CPC_UNKNWN
1	CPC_OPER_FRENCH
2	CPC_OPER_ENGLISH
3	CPC_OPER_GERMAN
4	CPC_OPER_RUSSIAN
5	CPC_OPER_SPANISH
6	CPC_ADMN1
7	CPC_ADMN2
8	CPC_ADMN3
9	CPC_ORD_SUBSC
10	CPC_ORD_SUB_METER
11	CPC_PRIO_SUBSC
12	CPC_DATA
13	CPC_TEST
14	CPC_CUST_PAYPHONE

Table A-9 Internal CPC Values (continued)

Internal CPC Value	Internal CPC Description
15	CPC_PUB_PAYPHONE
16	CPC_EMERGENCY
17	CPC_HIGH_PRIO_EMERG
18	CPC_NAT_EMERGENCY
19	CPC_TRUNK_OFFERING
20	CPC_MOBILE_CUSTOMER
21	CPC_PBX_SUBSC
22	CPC_OPER_WITH_FORWARD_FACILITY
23	CPC_INTERCEPT_OPER
24	CPC_CROSS_BORDER_OPER
25	CPC_LONG_DIST_PAYPHONE
26	CPC_INTERNATIONAL_PAYPHONE
27	CPC_INTERNATIONAL_TEST_EQPMNT
28	CPC_CHECK_CALLING_PARTY_NUM
29	CPC_NATIONAL_OPER
50	CPC_PRIO
51	CPC_INHBT_CALL_DIV
52	CPC_INTL_OPR
53	CPC_CUSTOMER_CLI
54	CPC_CUST_WITH_CLI_MM
55	CPC_CCR_CUSTOMER
56	CPC_CCR_CUST_MMREQ
57	CPC_TRANS_TEST_POS
58	CPC_PAYPHONE_NON_PUB
59	CPC_CONF_DEVICE
60	CPC_LINE_TEST_DESK
61	CPC_IMMED_CHG_INFO
62	CPC_ORD_PERIODIC
63	CPC_ORD_SMI
64	CPC_ORD_PRINTER
65	CPC_PRIO_PERIODIC
66	CPC_ORD_LOCAL
67	CPC_OP_WO_TRK
68	CPC_CCB_SUB
69	CPC_SUB_HM_MTR
70	CPC_PABX

Table A-9 Internal CPC Values (continued)

Internal CPC Value	Internal CPC Description
71	CPC_PABX_PRIO
72	CPC_ORD_NOCHARGE
73	CPC_PRIO_NOCHARGE
74	CPC_MAINT_ENVIRON
75	CPC_PAYPHONE_TYPE2
76	CPC_PAYPHONE_TYPE3
77	CPC_PAYPHONE_TYPE4
78	CPC_PBX_SUBSCRIBER1
79	CPC_PBX_SUBSCRIBER2
80	CPC_PBX_SUBSCRIBER3
81	CPC_PBX_SUBSCRIBER4
82	CPC_PAYPHONE_FINN
83	CPC_ALARM_DEVICE
84	CPC_PAYPHONE_WITHPRI
85	CPC_OSS_OPR
86	CPC_BELGACOM_SPEC1
87	CPC_BELGACOM_SPEC2
88	CPC_BELGACOM_SPEC3
89	CPC_Q_UNKNOWN
90	CPC_Q_FRENCH
91	CPC_Q_ENGLISH
92	CPC_Q_GERMAN
93	CPC_Q_RUSSIAN
94	CPC_Q_SPANISH
95	CPC_Q_ADMIN1
96	CPC_Q_ADMIN2
97	CPC_Q_ADMIN3
98	CPC_Q_ORD
99	CPC_Q_TEST
100	CPC_Q_EMERGENCY
101	CPC_Q_HIGH_PRIO_EMERG
102	CPC_Q_NAT_EMERGENCY
103	CPC_LANG_MUTUAL1
104	CPC_LANG_MUTUAL2
105	CPC_LANG_MUTUAL3

**Table A-9** Internal CPC Values (continued)

Internal CPC Value	Internal CPC Description
106	CPC_AUSTRAL_NATL_OPER
107	CPC_INTL_EMERGENCY_PREF

## CPC Protocol Variant Values

Table A-10 through Table A-15 list the CPC values for the Q.761, Q.767, Q.721, and ANSI protocol variants.

### Q.761 Base Protocol CPC Index

Table A-10 lists the Q.761 base protocol CPC index values.

**Table A-10** Q.761 Base Protocol CPC Index

CPC Message	External Binary Value (Decimal)	CPC Index	Internal Value
CPC_UNKNOWN	00000000—(0)	CPC_UNKNWN	0
CPC_FRENCH	00000001—(1)	CPC_OPER_FRENCH	1
CPC_ENGLISH	00000010—(2)	CPC_OPER_ENGLISH	2
CPC_GERMAN	00000011—(3)	CPC_OPER_GERMAN	3
CPC_RUSSIAN	00000100—(4)	CPC_OPER_RUSSIAN	4
CPC_SPANISH	00000101—(5)	CPC_OPER_SPANISH	5
CPC_ADMIN1	00000110—(6)	CPC_ADMN1	6
CPC_ADMIN2	00000111—(7)	CPC_ADMN2	7
CPC_ADMIN3	00001000—(8)	CPC_ADMN3	8
CPC_ORD	00001010—(10)	CPC_ORD_SUBSC	9
CPC_PRIO	00001011—(11)	CPC_PRIO	50
CPC_DATA	00001100—(12)	CPC_DATA	12
CPC_TEST	00001101—(13)	CPC_TEST	13
CPC_PAYPHONE	00001111—(15)	CPC_CUST_PAYPHONE	14

### Q.761 Danish Variant CPC Index

Table A-11 lists the Q.761 Danish variant CPC index values.

**Table A-11** Q.761 Danish Variant CPC Index

CPC Message	External Binary Value (Decimal)	CPC Index	Internal Value
CPC_UNKNOWN	00000000—(0)	CPC_UNKNWN	0
CPC_FRENCH	00000001—(1)	CPC_OPER_FRENCH	1

**Table A-11 Q.761 Danish Variant CPC Index (continued)**

CPC Message	External Binary Value (Decimal)	CPC Index	Internal Value
CPC_ENGLISH	00000010—(2)	CPC_OPER_ENGLISH	2
CPC_GERMAN	00000011—(3)	CPC_OPER_GERMAN	3
CPC_RUSSIAN	00000100—(4)	CPC_OPER_RUSSIAN	4
CPC_SPANISH	00000101—(5)	CPC_OPER_SPANISH	5
CPC_ADMIN1	00000110—(6)	CPC_ADMN1	6
CPC_ADMIN2	00000111—(7)	CPC_ADMN2	7
CPC_ADMIN3	00001000—(8)	CPC_ADMN3	8
CPC_INTERNATIONAL_OP	00001010—(10)	CPC_INTL_OPR	52
CPC_DATA	00001100—(12)	CPC_DATA	12
CPC_PAYPHONE	00001111—(15)	CPC_CUST_PAYPHONE	14
CPC_ACC_CHG_NO_PPIO	11110101—(245)	CPC_PAYPHONE_TYPE2	75
CPC_ALARM	11110110—(246)	CPC_ALARM_DEVICE	83
CPC_DATA_TRANSF	11111001—(249)	CPC_DATA_TRANSF	118
CPC_OPR	11111010—(250)	CPC_NATIONAL_OPER	29
CPC_ACC_CHG_PPIO	11111011—(251)	CPC_PAYPHONE_TYPE3	76
CPC_TEST	11111100—(252)	CPC_TEST	13
CPC_PPIO	11111101—(253)	CPC_PPIO	50
CPC_ORD	11111110—(254)	CPC_ORD_SUBSC	9

## Q.761\_97Ver and Q.767 Russian Variant CPC Index

Table A-12 lists Q.761\_97Ver and Q.767 Russian variant CPC index values.

**Table A-12 Q.761\_97Ver and Q.767 Russian Variant CPC Index**

CPC Message	External Binary Value (Decimal)	CPC Index	Internal Value
CPC_UNKNOWN	00000000—(0)	CPC_UNKNWN	0
CPC_FRENCH	00000001—(1)	CPC_OPER_FRENCH	1
CPC_ENGLISH	00000010—(2)	CPC_OPER_ENGLISH	2
CPC_GERMAN	00000011—(3)	CPC_OPER_GERMAN	3
CPC_RUSSIAN	00000100—(4)	CPC_OPER_RUSSIAN	4
CPC_SPANISH	00000101—(5)	CPC_OPER_SPANISH	5
CPC_ADMIN1	00000110—(6)	CPC_ADMN1	6
CPC_ADMIN2	00000111—(7)	CPC_ADMN2	7

Table A-12 Q.761\_97Ver and Q.767 Russian Variant CPC Index (continued)

CPC Message	External Binary Value (Decimal)	CPC Index	Internal Value
CPC_ADMIN3	00001000—(8)	CPC_ADMN3	8
CPC_NATIONAL_OPERATOR	00001001—(9)	CPC_NATIONAL_OPER	29
CPC_ORD	00001010—(10)	CPC_ORD_SUBSC	9
CPC_PRIO	00001011—(11)	CPC_PRIO	50
CPC_DATA	00001100—(12)	CPC_DATA	12
CPC_TEST	00001101—(13)	CPC_TEST	13
CPC_PAYPHONE	00001111—(15)	CPC_CUST_PAYPHONE	14
CPC_HOTEL_SUB_2	11100001—(225)	CPC_HOTEL_SUB_2	109
CPC_FREE_SUB_5	11100010—(226)	CPC_FREE_SUB_5	116
CPC_SPECIAL_SUB_7	11100011—(227)	CPC_SPECIAL_SUB_7	117
CPC_LOCAL_SUB_3	11100100—(228)	CPC_LOCAL_SUB_3	110
CPC_LOCALPAYPHONE_9	11100101—(229)	CPC_LOCALPAYPHONE_9	111
CPC_SPARE_0	11100000—(224)	CPC_SPARE_0	108
CPC_AUTO_CALL_1	11110000—(240)	CPC_ORD_SUBSC	9
CPC_SEMI_AUTO_CALL_1	11110001—(241)	CPC_ORD_SUBSC	9
CPC_AUTO_CALL_2	11110010—(242)	CPC_ORD_SUBSC	9
CPC_SEMI_AUTO_CALL_2	11110011—(243)	CPC_ORD_SUBSC	9
CPC_AUTO_CALL_3	11110100—(244)	CPC_AUTO_CALL_3	115
CPC_SEMI_AUTO_CALL_3	11110101—(245)	CPC_SEMI_AUTO_CALL_3	112
CPC_AUTO_CALL_4	11110110—(246)	CPC_AUTO_CALL_4	113
CPC_SEMI_AUTO_CALL_4	11110111—(247)	CPC_SEMI_AUTO_CALL_4	114
CPC_PRIO_PERIODIC	11111011—(251)	CPC_ORD_SUBSC	9
CPC_ORD_LOCAL	11111110—(254)	CPC_ORD_SUBSC	9

## Q.767 Base Protocol CPC Index

Table A-13 lists the Q.767 base protocol CPC index values.

**Table A-13 Q.767 Base Protocol CPC Index**

CPC Message	External Binary Value (Decimal)	CPC Index	Internal Value
CPC_UNKNOWN	00000000—(0)	CPC_UNKNWN	0
CPC_FRENCH	00000001—(1)	CPC_OPER_FRENCH	1
CPC_ENGLISH	00000010—(2)	CPC_OPER_ENGLISH	2
CPC_GERMAN	00000011—(3)	CPC_OPER_GERMAN	3
CPC_RUSSIAN	00000100—(4)	CPC_OPER_RUSSIAN	4
CPC_SPANISH	00000101—(5)	CPC_OPER_SPANISH	5
CPC_ADMIN1	00000110—(6)	CPC_ADMN1	6
CPC_ADMIN2	00000111—(7)	CPC_ADMN2	7
CPC_ADMIN3	00001000—(8)	CPC_ADMN3	8
CPC_ORD	00001010—(10)	CPC_ORD_SUBSC	9
CPC_PRIO	00001011—(11)	CPC_PRIO	50
CPC_DATA	00001100—(12)	CPC_DATA	12
CPC_TEST	00001101—(13)	CPC_TEST	13

## Q.721 Base Protocol CPC Index

Table A-14 lists the Q.721 base protocol CPC index values.

**Table A-14 Q.721 Base Protocol CPC Index**

CPC Message	External Binary Value (Decimal)	CPC Index	Internal Value
CPC_UNKNOWN	00000000—(0)	CPC_UNKNWN	0
CPC_FRENCH	00000001—(1)	CPC_OPER_FRENCH	1
CPC_ENGLISH	00000010—(2)	CPC_OPER_ENGLISH	2
CPC_GERMAN	00000011—(3)	CPC_OPER_GERMAN	3
CPC_RUSSIAN	00000100—(4)	CPC_OPER_RUSSIAN	4
CPC_SPANISH	00000101—(5)	CPC_OPER_SPANISH	5
CPC_LANG_MUTUAL1	000110—(6)	CPC_ADMN1	6
CPC_LANG_MUTUAL2	000111—(7)	CPC_ADMN2	7
CPC_LANG_MUTUAL3	001000—(8)	CPC_ADMN3	8

## ANSI Base Protocol CPC Index

Table A-15 lists the ANSI base protocol CPC index values.

Table A-15 ANSI Base Protocol CPC Index

CPC Message	External Binary Value (Decimal)	CPC Index	Internal Value
CPC_UNKNOWN	00000000—(0)	CPC_UNKNWN	0
CPC_FRENCH	00000001—(1)	CPC_OPER_FRENCH	1
CPC_ENGLISH	00000010—(2)	CPC_OPER_ENGLISH	2
CPC_GERMAN	00000011—(3)	CPC_OPER_GERMAN	3
CPC_RUSSIAN	00000100—(4)	CPC_OPER_RUSSIAN	4
CPC_SPANISH	00000101—(5)	CPC_OPER_SPANISH	5
CPC_ADMIN1	00000110—(6)	CPC_ADMN1	6
CPC_ADMIN2	00000111—(7)	CPC_ADMN2	7
CPC_ADMIN3	00001000—(8)	CPC_ADMN3	8
CPC_ORD	00001010—(10)	CPC_ORD_SUBSC	9
CPC_TEST	00001101—(13)	CPC_TEST	13
CPC_PAYPHONE	00001111—(15)	CPC_CUST_PAYPHONE	14
CPC_EMERGENCY	11100000—(224)	CPC_EMERGENCY	16
CPC_HIGH_PRIO_EMERG	11100001—(225)	CPC_HIGH_PRIO_EMERG	17
CPC_NAT_EMERGENCY	11100010—(226)	CPC_NAT_EMERGENCY	18
CPC_Q_UNKNOWN	00010000—(16)	CPC_Q_UNKNOWN	89
CPC_Q_FRENCH	00010001—(17)	CPC_Q_FRENCH	90
CPC_Q_ENGLISH	00010010—(18)	CPC_Q_ENGLISH	91
CPC_Q_GERMAN	00010011—(19)	CPC_Q_GERMAN	92
CPC_Q_RUSSIAN	00010100—(20)	CPC_Q_RUSSIAN	93
CPC_Q_SPANISH	00010101—(21)	CPC_Q_SPANISH	94
CPC_Q_ADMIN1	00010110—(22)	CPC_Q_ADMIN1	95
CPC_Q_ADMIN2	00010111—(23)	CPC_Q_ADMIN2	96
CPC_Q_ADMIN3	00011000—(24)	CPC_Q_ADMIN3	97
CPC_Q_ORD	00011010—(26)	CPC_Q_ORD	98
CPC_Q_TEST	00011101—(31)	CPC_Q_TEST	99
CPC_Q_EMERGENCY	11110000—(240)	CPC_Q_EMERGENCY	100
CPC_Q_HIGH_PRIO_EMER G	11110001—(241)	CPC_Q_HIGH_PRIO_EMER G	101
CPC_Q_NAT_EMERGENCY	11110010—(242)	CPC_Q_NAT_EMERGENCY	102

# TMR Values

The Transmission Medium Requirement (TMR) internal values are listed in [Table A-16](#) and corresponding TMR description.

The TMR value range is from 0 through 255. [Table A-16](#) lists the internal TMR value and corresponding TMR description.

**Table A-16** Internal TMR Values

Internal TMR Value	Internal TMR Description
0	TMR_SPEECH
1	TMR_UNRES_64K
2	TMR_AUDIO_3K
3	TMR_64K_PREF
4	TMR_128K
5	TMR_384K
6	TMR_1536K
7	TMR_1920K
16	TMR_3_64K
17	TMR_4_64K
18	TMR_5_64K
19	TMR_6_64K
20	TMR_7_64K
21	TMR_8_64K
22	TMR_9_64K
23	TMR_10_64K
24	TMR_11_64K
25	TMR_12_64K
26	TMR_13_64K
27	TMR_14_64K
28	TMR_15_64K
29	TMR_16_64K
30	TMR_17_64K
31	TMR_18_64K
32	TMR_19_64K
33	TMR_20_64K
34	TMR_21_64K
35	TMR_22_64K
36	TMR_23_64K
37	TMR_24_64K

Table A-16 Internal TMR Values (continued)

Internal TMR Value	Internal TMR Description
38	TMR_25_64K
39	TMR_26_64K
40	TMR_27_64K
41	TMR_28_64K
42	TMR_29_64K
63	TMR_7K_AUDIO
64	TMR_VIDEO
65	TMR_UNKNOWN
66	TMR_NOT_REQUIRED
67	TMR_CAP_SPEECH_RATE_KB64
68	TMR_CAP_SPEECH_RATE_128K
69	TMR_CAP_SPEECH_RATE_384K
70	TMR_CAP_SPEECH_RATE_1536K
71	TMR_CAP_SPEECH_RATE_1920K
72	TMR_CAP_SPEECH_RATE_FOR_PACKET
73	TMR_CAP_SPEECH_RATE_KB32
74	TMR_CAP_SPEECH_RATE_KB1472
75	TMR_CAP_SPEECH_RATE_MULTI
76	TMR_CAP_SPEECH_RATE_NOT_REQUIRED
77	TMR_CAP_SPEECH_RATE_64K_PREF
78	TMR_CAP_UNRES_64K_RATE_UNRES_64K
79	TMR_CAP_UNRES_64K_RATE_128K
80	TMR_CAP_UNRES_64K_RATE_384K
81	TMR_CAP_UNRES_64K_RATE_1536K
82	TMR_CAP_UNRES_64K_RATE_1920K
83	TMR_CAP_UNRES_64K_RATE_FOR_PACKET
84	TMR_CAP_UNRES_64K_RATE_KB32
85	TMR_CAP_UNRES_64K_RATE_KB1472
86	TMR_CAP_UNRES_64K_RATE_MULTI
87	TMR_CAP_UNRES_64K_RATE_NOT_REQUIRED
88	TMR_CAP_UNRES_64K_RATE_64K_PREF
89	TMR_CAP_AUDIO_3K_RATE_UNRES_64K
90	TMR_CAP_AUDIO_3K_RATE_128K
91	TMR_CAP_AUDIO_3K_RATE_384K
92	TMR_CAP_AUDIO_3K_RATE_1536K
93	TMR_CAP_AUDIO_3K_RATE_1920K

Table A-16 Internal TMR Values (continued)

Internal TMR Value	Internal TMR Description
94	TMR_CAP_AUDIO_3K_RATE_FOR_PACKET
95	TMR_CAP_AUDIO_3K_RATE_KB32
96	TMR_CAP_AUDIO_3K_RATE_KB1472
97	TMR_CAP_AUDIO_3K_RATE_MULTI
98	TMR_CAP_AUDIO_3K_RATE_NOT_REQUIRED
99	TMR_CAP_AUDIO_3K_RATE_64K_PREF
100	TMR_CAP_RES_DIG_RATE_UNRES_64K
101	TMR_CAP_RES_DIG_RATE_128K
102	TMR_CAP_RES_DIG_RATE_384K
103	TMR_CAP_RES_DIG_RATE_1536K
104	TMR_CAP_RES_DIG_RATE_1920K
105	TMR_CAP_RES_DIG_RATE_RATE_FOR_PACKET
106	TMR_CAP_RES_DIG_RATE_RATE_KB32
107	TMR_CAP_RES_DIG_RATE_RATE_KB1472
108	TMR_CAP_RES_DIG_RATE_RATE_MULTI
109	TMR_CAP_RES_DIG_RATE_RATE_NOT_REQUIRED
110	TMR_CAP_RES_DIG_RATE_RATE_64K_PREF
122	TMR_CAP_7K_AUDIO_RATE_UNRES_64K
123	TMR_CAP_7K_AUDIO_RATE_128K
124	TMR_CAP_7K_AUDIO_RATE_384K
125	TMR_CAP_7K_AUDIO_RATE_1536K
126	TMR_CAP_7K_AUDIO_RATE_1920K
127	TMR_CAP_7K_AUDIO_RATE_RATE_FOR_PACKET
128	TMR_CAP_7K_AUDIO_RATE_RATE_KB32
129	TMR_CAP_7K_AUDIO_RATE_RATE_KB1472
130	TMR_CAP_7K_AUDIO_RATE_RATE_MULTI
131	TMR_CAP_7K_AUDIO_RATE_RATE_NOT_REQUIRED
132	TMR_CAP_7K_AUDIO_RATE_RATE_64K_PREF
133	TMR_CAP_VIDEO_RATE_UNRES_64K
134	TMR_CAP_VIDEO_RATE_128K
135	TMR_CAP_VIDEO_RATE_384K
136	TMR_CAP_VIDEO_RATE_1536K
137	TMR_CAP_VIDEO_RATE_1920K
138	TMR_CAP_VIDEO_RATE_FOR_PACKET
139	TMR_CAP_VIDEO_RATE_KB32
140	TMR_CAP_VIDEO_RATE_KB1472

**Table A-16** Internal TMR Values (continued)

Internal TMR Value	Internal TMR Description
141	TMR_CAP_VIDEO_RATE_MULTI
142	TMR_CAP_VIDEO_RATE_NOT_REQUIRED
143	TMR_CAP_VIDEO_RATE_64K_PREF
144	TMR_CAP_UNKNOWN_RATE_UNRES_64K
145	TMR_CAP_UNKNOWN_RATE_128K
146	TMR_CAP_UNKNOWN_RATE_384K
147	TMR_CAP_UNKNOWN_RATE_1536K
148	TMR_CAP_UNKNOWN_RATE_1920K
149	TMR_CAP_UNKNOWN_RATE_FOR_PACKET
150	TMR_CAP_UNKNOWN_RATE_KB32
151	TMR_CAP_UNKNOWN_RATE_KB1472
152	TMR_CAP_UNKNOWN_RATE_MULTI
153	TMR_CAP_UNKNOWN_RATE_NOT_REQUIRED
154	TMR_CAP_UNKNOWN_RATE_64K_PREF
155	TMR_CAP_UNKNOWN_RATE_UNKNOWN
156	TMR_RES_DIG

## TMR Protocol Variant Values

Table A-17 through Table A-19 list the TMR values for the Q.761, Q.767, and ANSI protocol variants.

### Q.761 Base Protocol TMR Index

Table A-17 lists the Q.761 base protocol TMR index values.

**Table A-17** Q.761 Base Protocol TMR Index

TMR Message	External Binary Value (Decimal)	TMR Index	Internal Value
TMR_SPEECH	00000000—(0)	TMR_SPEECH	0
TMR_AUDIO_3K	00000011—(3)	TMR_AUDIO_3K	2
TMR_UNRES_64K	00000010—(2)	TMR_UNRES_64K	1
TMR_64K_PREF	00000110—(6)	TMR_64K_PREF	3
TMR_128K	00000111—(7)	TMR_128K	4
TMR_384K	00001000—(8)	TMR_384K	5
TMR_1536K	00001001—(9)	TMR_1536K	6
TMR_1920K	00001010—(10)	TMR_1920K	7

## Q.767 Base Protocol TMR Index

Table A-18 lists the Q.767 base protocol TMR index values.

**Table A-18 Q.767 Base Protocol TMR Index**

TMR Message	External Binary Value (Decimal)	TMR Index	Internal Value
TMR_SPEECH	00000000—(0)	TMR_SPEECH	0
TMR_AUDIO_3K	00000011—(3)	TMR_AUDIO_3K	2
TMR_UNRES_64K	00000010—(2)	TMR_UNRES_64K	1
TMR_384K	00001000—(8)	TMR_384K	5
TMR_1536K	00001001—(9)	TMR_1536K	6
TMR_1920K	00001010—(10)	TMR_1920K	7

## ANSI Base Protocol TMR Index

Table A-19 lists the ANSI base protocol TMR index values.

**Table A-19 ANSI Base Protocol TMR Index**

Transfer Capacity Binary Value (Decimal)	Transfer Rate Binary Value (Decimal)	TMR Index	Internal Value
TM_CAP_SPEECH 00000—(0)	TM_RATE_FOR_PACKET 00000—(0)	TMR_CAP_SPEECH_RATE_FOR_PACKET	72
TM_CAP_SPEECH 00000—(0)	TM_RATE_KB64, 10000—(16)	TMR_CAP_SPEECH_RATE_KB64	67
TM_CAP_SPEECH 00000—(0)	TM_RATE_KB384, 10011—(19)	TMR_CAP_SPEECH_RATE_384K	69
TM_CAP_SPEECH 00000—(0)	TM_RATE_KB1472 10000—(20)	TMR_CAP_SPEECH_RATE_KB1472	74
TM_CAP_SPEECH 00000—(0)	TM_RATE_KB1536, 10101—(21)	TMR_CAP_SPEECH_RATE_1536K	70
TM_CAP_SPEECH 00000—(0)	TM_RATE_KB1920, 10111—(23)	TMR_CAP_SPEECH_RATE_1920K	71
TM_CAP_SPEECH 00000—(0)	TM_RATE_MULTI 11000—(24)	TMR_CAP_SPEECH_RATE_MULTI	75
TM_CAP_UNRES_DIG 01000—(8)	TM_RATE_FOR_PACKET 000000—(0)	TMR_CAP_UNRES_64K_RATE_FOR_PACKET	83
TM_CAP_UNRES_DIG 01000—(8)	TM_RATE_KB64, 10000—(16)	TMR_CAP_UNRES_64K_RATE_UNRES_64K	78
TM_CAP_UNRES_DIG 01000—(8)	TM_RATE_KB384, 10011—(19)	TMR_CAP_UNRES_64K_RATE_384K	80
TM_CAP_UNRES_DIG 01000—(8)	TM_RATE_KB1472 10100—(20)	TMR_CAP_UNRES_64K_RATE_KB1472	85

Table A-19 ANSI Base Protocol TMR Index (continued)

Transfer Capacity Binary Value (Decimal)	Transfer Rate Binary Value (Decimal)	TMR Index	Internal Value
TM_CAP_UNRES_DIG 01000—(8)	TM_RATE_KB1536, 10101—(21)	TMR_CAP_UNRES_64K_ RATE_1536K	81
TM_CAP_UNRES_DIG 01000—(8)	TM_RATE_KB1920, 10111—(23)	TMR_CAP_UNRES_64K_ RATE_1920K	82
TM_CAP_UNRES_DIG 01000—(8)	TM_RATE_MULTI 11000—(24)	TMR_CAP_UNRES_64K_ RATE_MULTI	86
TM_CAP_RES_DIG 01001—(9)	TM_RATE_FOR_PACKET 00000—(0)	TMR_CAP_RES_DIG_RAT E_FOR_PACKET	105
TM_CAP_RES_DIG 01001—(9)	TM_RATE_KB64, 10000—(16)	TMR_CAP_RES_DIG_RAT E_UNRES_KB64	100
TM_CAP_RES_DIG 01001—(9)	TM_RATE_KB384, 10011—(19)	TMR_CAP_RES_DIG_RAT E_384K	102
TM_CAP_RES_DIG 01001—(9)	TM_RATE_KB1472 10100—(20)	TMR_CAP_RES_DIG_RAT E_KB1472	107
TM_CAP_RES_DIG 01001—(9)	TM_RATE_KB1536, 10101—(21)	TMR_CAP_RES_DIG_RAT E_1536K	103
TM_CAP_RES_DIG 01001—(9)	TM_RATE_KB1920, 10111—(23)	TMR_CAP_RES_DIG_RAT E_1920K	104
TM_CAP_RES_DIG 01001—(9)	TM_RATE_MULTI 11000—(24)	TMR_CAP_RES_DIG_RAT E_MULTI	108
TM_CAP_3_1KHZ, 10000—(16)	TM_RATE_FOR_PACKET 00000—(0)	TMR_CAP_AUDIO_3K_R ATE_FOR_PACKET	94
TM_CAP_3_1KHZ, 10000—(16)	TM_RATE_KB64, 10000—(16)	TMR_CAP_AUDIO_3K_ RATE_UNRES_KB64	89
TM_CAP_3_1KHZ, 10000—(16)	TM_RATE_KB384, 10011—(19)	TMR_CAP_AUDIO_3K_R ATE_384K	91
TM_CAP_3_1KHZ, 10000—(16)	TM_RATE_KB1472 10100—(20)	TMR_CAP_AUDIO_3K_R ATE_KB1472	96
TM_CAP_3_1KHZ, 10000—(16)	TM_RATE_KB1536, 10101—(21)	TMR_CAP_AUDIO_3K_R ATE_1536K	92
TM_CAP_3_1KHZ, 10000—(16)	TM_RATE_KB1920, 10111—(23)	TMR_CAP_AUDIO_3K_R ATE_1920K	93
TM_CAP_3_1KHZ, 10000—(16)	TM_RATE_MULTI 11000—(24)	TMR_CAP_AUDIO_3K_R ATE_MULTI	97
TM_CAP_7K_AUDIO 10001—(17)	TM_RATE_FOR_PACKET 00000—(0)	TMR_CAP_7K_AUDIO_ RATE_FOR_PACKET	127
TM_CAP_7K_AUDIO 10001—(17)	TM_RATE_KB64, 10000—(16)	TMR_CAP_7K_AUDIO_R ATE_UNRES_KB64	122
TM_CAP_7K_AUDIO 10001—(17)	TM_RATE_KB384, 10011—(19)	TMR_CAP_7K_AUDIO_ RATE_384K	124

Table A-19 ANSI Base Protocol TMR Index (continued)

Transfer Capacity Binary Value (Decimal)	Transfer Rate Binary Value (Decimal)	TMR Index	Internal Value
TM_CAP_7K_AUDIO 10001—(17)	TM_RATE_KB1472 10100—(20)	TMR_CAP_7K_AUDIO_ RATE_KB1472	129
TM_CAP_7K_AUDIO 10001—(17)	TM_RATE_KB1536, 10101—(21)	TMR_CAP_7K_AUDIO_ RATE_1536K	125
TM_CAP_7K_AUDIO 10001—(17)	TM_RATE_KB1920, 10111—(23)	TMR_CAP_7K_AUDIO_ RATE_1920K	126
TM_CAP_7K_AUDIO 10001—(17)	TM_RATE_MULTI 11000—(24)	TMR_CAP_7K_AUDIO_ RATE_MULTI	130

