



ANSI C12.21-2006 (R2016)

*American National Standard for
Protocol Specification for
Telephone Modem Communication*

Secretariat:

National Electrical Manufacturers Association

Approved August 23, 2016

American National Standards Institute, Inc.

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Foreword (This Foreword is not part of American National Standard C12.21)

This standard provides an open-platform communications protocol for two-way communication with a metering device via a telephone modem. The protocol is written to conform to the OSI seven-layer stack.

Long-time readers of ANSI C12.21 will discover many editing changes to this version of the Standard. The Working Group chose to improve the clarity of the text as an aid to the reader while retaining the normative elements in the manner of previous publications.

The 2006 revision of this standard was considered in the context of the so-called "protocol suite" of ANSI standards: C12.18, C12.19, C12.21 and C12.22 (draft). Changes made were included only after assuring that existing devices implementing C12.21 would continue to remain compatible with the 2006 (R2015) revision.

It is expected that the logoff service will become mandatory in the next revision of this Standard. Implementers are strongly encouraged to support this service to comply with this change.

Suggestions for improvement to this standard are welcome. They should be sent to:

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This standard was processed and approved for submittal to ANSI by Accredited Standards Committee for Electricity Metering C12. At the time the committee approved this standard, the C12 Committee had the following members:

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CONTENTS

Foreword	ii
1 Scope.....	1
2 References	1
3 Definitions and Syntax.....	1
3.1 Definitions.....	1
3.1.1 C12.21 Client.....	1
3.1.2 C12.21 Device.....	2
3.1.3 Table.....	2
3.2 Document Syntax	2
4 Protocol Details	2
4.1 Order of Transmission	2
4.2 Layer 7—Application Layer	3
4.2.1 Data Structure	3
4.2.2 Protocol Specification for Electric Metering	3
4.2.2.1 Request Codes	3
4.2.2.2 Response Codes.....	4
4.2.2.3 Identification Service	5
4.2.2.4 Read Service.....	9
4.2.2.5 Write Service	9
4.2.2.6 Logon Service	9
4.2.2.7 Security Service	9
4.2.2.8 Logoff Service	9
4.2.2.9 Authenticate Service	10
4.2.2.10 Negotiate Service	11
4.2.2.11 Wait Service	11
4.2.2.12 Terminate Service	11
4.2.2.13 Timing Setup Service	11
4.2.2.14 Disconnect Service	12
4.3 Layer 6—Presentation Layer.....	12
4.4 Layer 5—Session Layer	12
4.5 Layer 4—Transport Layer.....	12
4.6 Layer 3—Network Layer.....	12
4.7 Layer 2—Data Link Layer.....	13
4.7.1 Basic Data Information.....	13
4.7.1.1 Fixed Settings.....	13
4.7.1.2 Variable Settings	13
4.7.2 Packet Definition	13
4.7.3 Duplicate Packets.....	15
4.7.4 CRC Selection.....	15
4.7.5 Acknowledgment	15
4.7.6 Retransmission.....	16
4.7.7 Time-out	16
4.7.7.1 Channel Traffic Time-out.....	16
4.7.7.2 Inter-Character Time-out.....	16
4.7.7.3 Response Time-out.....	16
4.7.8 Turn-around Delay	16
4.7.9 Collision.....	16
4.8 Layer 1—Physical Layer.....	16
5 Compliance.....	16
Annex A—Communication Example (Layer 7 and Layer 2)	18
Annex B—Packet Transmission Example	20
Annex C—Service Sequence State Control	22

Annex D—Modifications and Extensions to C12.19- 1997	24
D.1 RDATE Type.....	25
D.2 Table 03 ED_MODE STATUS Table	27
D.3 Table 07 - Procedure initiate Table	30
D.4 Decade 90: Telephone Control Tables.....	31
D.5 History and Event Log Codes.....	48
D.6 Default Sets for Decade Tables	49
D.7 Indices for Partial Table Access	50
Annex E—CRC Examples	53
E.1 Trace.....	53
E.2 C Code Example	54
Annex F—Error Handling.....	55
Annex G - Data Encryption Standard.....	57
G.1 Usage	57
G.2 Legal Issues.....	57
G.3 Implementation	58
G.4 Code Example	61
G.5 Trace Example.....	63
Annex H—I Command Operational Description	65
Annex I—Compatibility.....	66
I.1 Backward Compatibility With Previous Versions of the Standard.....	66
I.2 Forward Compatibility With Next Versions of the Standard	66
Annex J—Historical Background	68
J.1 Foreword of C12.21-1999.....	68

1 Scope

This standard details the criteria required for communications between a C12.21 Device and a C12.21 Client via a modem connected to the switched telephone network. The C12.21 Client could be a laptop or portable computer, a master station system, or some other electronic communications device.

This standard does not specify the implementation requirements of the telephone switched network to the modem, nor does it include definitions for the establishment of the communication channel.

This document provides details for an implementation of the OSI 7-layer model.

The protocol specified in this standard was designed to transport data in table format. The table definitions are in ANSI C12.19, and Annex D of this document.

This standard specifies the differences between ANSI C12.18-2005, Protocol Specification for ANSI Type 2 Optical Port and ANSI C12.19-1997, Utility Industry End Device Data Tables, and those features and services required to describe a protocol specification for Telephone Modem Communications.