

Exhibit 1



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(54) **PROGRAMMABLE COMMUNICATOR**

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 3,802,012 A * 4/1974 Middleton, Jr. 441/95
- 4,276,468 A * 6/1981 Nagamoto et al. 377/2

(Continued)

FOREIGN PATENT DOCUMENTS

- CA 1296068 C 2/1992 A61B 5/00
- CA 2 293 393 A1 12/1998 H04Q 7/32

(Continued)

OTHER PUBLICATIONS

Legends of Abbreviations and Symbols, 57 pages (Jan. 2014) [English Translation].

(Continued)

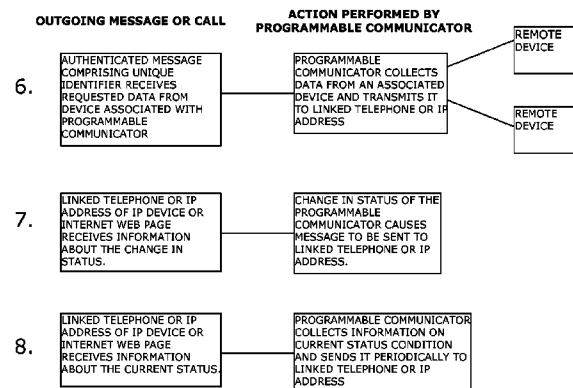
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(57) **ABSTRACT**

A technical data monitoring device for use with a wireless data monitoring network includes a wireless communications circuit, and at least one technical device/system. The technical data monitoring device establishes a wireless communication link with a programmable interface of a programmable cellular telephone. The device is also configured to send and/or receive wireless packet switched data transmissions, generate data and send data over the wireless communication link for processing by the programmable cellular telephone, and has an associated status condition. Data from the device is (1) sent to be processed and displayed by the programmable cellular telephone and/or (2) sent to be processed and forwarded by the programmable cellular telephone to an Internet website. The device forms part of the wireless data monitoring network in communication with the programmable cellular telephone. The technical device/system can be one of a number of sensors, devices, or systems.

30 Claims, 3 Drawing Sheets



Related U.S. Application Data

continuation of application No. 13/801,773, filed on Mar. 13, 2013, now Pat. No. 8,542,111, which is a continuation of application No. 12/538,603, filed on Aug. 10, 2009, now Pat. No. 8,094,010, which is a continuation of application No. 11/329,212, filed on Jan. 10, 2006, now Pat. No. 7,583,197, which is a continuation of application No. 10/296,571, filed as application No. PCT/EP01/05738 on May 18, 2001, now abandoned.

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(56)

References Cited

U.S. PATENT DOCUMENTS

4,465,904	A	8/1984	Gottsegen et al.	179/5	R
4,658,096	A	4/1987	West, Jr. et al.	379/59	
4,855,713	A	8/1989	Brunius	340/506	
4,908,853	A	3/1990	Matsumoto	379/355	
4,951,029	A	8/1990	Severson	340/506	
5,012,234	A	4/1991	Dulaney et al.	340/825.44	
5,207,784	A*	5/1993	Schwartzendruber	221/6	
5,276,729	A	1/1994	Higuchi et al.	379/58	
5,293,418	A	3/1994	Fukawa	379/58	
5,348,008	A	9/1994	Bornn et al.	128/642	
5,381,138	A	1/1995	Stair et al.	340/825.44	
5,396,264	A	3/1995	Falcone et al.	345/146	
5,544,661	A	8/1996	Davis et al.	128/700	
5,548,271	A	8/1996	Tsuchiyama et al.	340/311.1	
5,581,599	A	12/1996	Tsuji et al.	379/63	
5,581,803	A	12/1996	Grube et al.	455/54.1	
5,623,533	A	4/1997	Kikuchi et al.	379/58	
5,689,442	A	11/1997	Swanson et al.	364/550	
5,689,563	A	11/1997	Brown et al.	380/23	
5,689,825	A	11/1997	Averbuch et al.	455/89	
5,699,513	A	12/1997	Feigen et al.	395/187.01	
5,742,233	A	4/1998	Hoffman et al.	340/573	
5,742,666	A	4/1998	Alpert	379/58	
5,745,049	A	4/1998	Akiyama et al.	340/870.17	
5,752,976	A	5/1998	Duffin et al.	607/32	
5,771,455	A	6/1998	Kennedy, III et al.	455/456	
5,774,804	A	6/1998	Williams	455/419	
5,802,460	A	9/1998	Parvulescu et al.	455/92	

5,884,161	A	3/1999	Hegeman	455/414	
5,901,320	A	5/1999	Takahashi et al.	395/712	
5,903,634	A	5/1999	Wakabayashi et al.	379/127	
5,922,074	A	7/1999	Richard et al.	713/200	
5,940,752	A	8/1999	Henrick	455/419	
5,946,636	A	8/1999	Uyeno et al.	455/566	
5,948,064	A	9/1999	Bertram et al.	709/225	
5,960,366	A	9/1999	Duwaer	455/556	
5,974,312	A	10/1999	Hayes, Jr. et al.	455/419	
5,983,350	A	11/1999	Minear et al.	713/201	
5,995,603	A	11/1999	Anderson	379/142	
5,997,476	A	12/1999	Brown	600/300	
5,999,990	A	12/1999	Sharrit et al.	710/8	
6,026,293	A	2/2000	Osborn	455/411	
6,031,828	A	2/2000	Koro et al.	370/336	
6,038,491	A	3/2000	McGarry et al.	700/231	
6,041,229	A	3/2000	Turner	455/420	
6,072,396	A	6/2000	Gaukel	340/573.4	
6,075,451	A	6/2000	Lebowitz et al.	340/825.06	
6,078,948	A	6/2000	Podgorny et al.	709/204	
6,108,521	A	8/2000	Foladare et al.	455/31.3	
6,108,531	A	8/2000	Berg et al.	455/408	
6,125,273	A	9/2000	Yamagishi	455/411	
6,144,859	A	11/2000	LaDue	455/511	
6,148,197	A	11/2000	Bridges et al.	455/432	
6,157,318	A	12/2000	Minata	340/825.44	
6,172,616	B1	1/2001	Johnson et al.	340/870.12	
6,198,390	B1	3/2001	Schlager et al.	340/540	
6,208,039	B1	3/2001	Mendelsohn et al.	307/52	
6,208,839	B1	3/2001	Davani	455/31.3	
6,208,854	B1	3/2001	Roberts et al.	455/417	
6,215,994	B1	4/2001	Schmidt et al.	455/419	
6,230,002	B1	5/2001	Flodén et al.	455/411	
6,275,143	B1	8/2001	Stobbe	340/10.34	
6,288,641	B1	9/2001	Casais	340/539	
6,289,084	B1	9/2001	Bushnell	379/67.1	
6,295,449	B1	9/2001	Westerlage et al.	455/422	
6,308,083	B2	10/2001	King	455/556	
6,314,270	B1	11/2001	Uchida	455/67.1	
6,327,466	B1	12/2001	Savolainen	455/407	
6,377,161	B1	4/2002	Gromelski et al.	340/7.45	
6,377,577	B1	4/2002	Bechtolsheim et al.	370/392	
6,388,612	B1	5/2002	Neher	342/357.07	
6,396,416	B1	5/2002	Kuusela et al.	340/870.28	
6,411,198	B1	6/2002	Hirai et al.	340/7.6	
6,424,623	B1	7/2002	Borgstahl et al.	370/230	
6,442,432	B2	8/2002	Lee	607/59	
6,450,922	B1*	9/2002	Henderson et al.	482/8	
6,463,474	B1	10/2002	Fuh et al.	709/225	
6,487,478	B1	11/2002	Azzaro et al.	701/24	
6,496,777	B2	12/2002	Tennison et al.	701/213	
6,519,242	B1	2/2003	Emery et al.	370/338	
6,546,239	B1	4/2003	Pazdersky et al.	455/410	
6,553,418	B1	4/2003	Collins et al.	709/224	
6,567,671	B2	5/2003	Amin	455/550	
6,573,825	B1	6/2003	Okano	340/7.51	
6,577,881	B1	6/2003	Ehara	455/563	
6,606,508	B2	8/2003	Becker et al.	455/567	
6,611,755	B1	8/2003	Coffee et al.	701/213	
6,633,784	B1	10/2003	Lovelace, II et al.	700/65	
6,658,586	B1	12/2003	Levi	714/4	
6,671,522	B1	12/2003	Beaudou	455/558	
6,751,452	B1	6/2004	Kupczyk et al.	455/345	
6,759,956	B2	7/2004	Menard et al.	340/539.19	
6,832,102	B2	12/2004	I'Anson	455/556.1	
6,833,787	B1	12/2004	Levi	340/539.13	
6,873,842	B2	3/2005	Elayda et al.	455/418	
6,900,737	B1	5/2005	Ardalan et al.	340/870.02	
6,922,547	B2	7/2005	O'Neill et al.	455/17	
6,970,917	B1	11/2005	Kushwaha et al.	709/217	
6,985,742	B1	1/2006	Giniger et al.	455/456.1	
6,988,989	B2	1/2006	Weiner et al.	600/300	
7,027,808	B2	4/2006	Wesby	455/419	
7,084,771	B2	8/2006	Gonzalez	340/573.1	
7,254,601	B2	8/2007	Baller et al.	709/200	
7,558,564	B2	7/2009	Wesby	455/419	
7,583,197	B2	9/2009	Wesby Van Swaay	340/573.4	

(56)

References Cited

U.S. PATENT DOCUMENTS

8,542,111	B2	9/2013	Wesby-Van Swaay ..	340/539.12
8,633,802	B2	1/2014	Wesby-Van Swaay	340/7.29
8,648,717	B2	2/2014	Wesby-Van Swaay ..	340/539.12
2001/0001234	A1	5/2001	Addy et al.	340/531
2001/0051787	A1*	12/2001	Haller et al.	604/66
2002/0013146	A1	1/2002	Albrecht	455/420
2002/0046353	A1	4/2002	Kishimoto	713/202
2002/0080938	A1	6/2002	Alexander, III et al. .	379/106.01
2002/0198997	A1	12/2002	Linthicum et al.	709/227
2003/0176952	A1	9/2003	Collins et al.	700/286
2005/0203349	A1*	9/2005	Nanikashvili	600/300
2010/0035580	A1	2/2010	Wesby-Van Swaay	455/411
2012/0088474	A1	4/2012	Wesby-van Swaay	455/411

FOREIGN PATENT DOCUMENTS

DE	196 25 581	A1	12/1997	.....	G08B 25/10
DE	197 07 681	C1	5/1998	.....	H04M 1/00
EP	0 432 746	A2	6/1991	.....	H04M 1/57
EP	0 459 344	A1	12/1991	.....	H04Q 7/04
EP	0 524 652	A2	1/1993	.....	H04M 1/274
EP	0 632 629	A1	1/1995	.....	H04L 29/06
EP	0 772 336	A2	5/1997	.....	H04M 9/00
EP	0 804 046	A2	10/1997	.....	H04Q 7/32
EP	0 996 299	A1	4/2000	.....	H04Q 7/22
EP	0 996 302	A1	4/2000	.....	H04Q 7/32
EP	1 013 055	B1	4/2005	.....	H04M 1/72
GB	2 313 519	A	11/1997	.....	H04Q 7/32
JP	07-087211	A	3/1995	.....	H04M 11/00
JP	09-64950	A	3/1997	.....	H04M 1/02
JP	2000-115859	A	4/2000	.....	H04Q 7/38
JP	2000-135384	A	5/2000	.....	A63H 3/33
JP	2001-177668	A	6/2001	.....	H04M 11/00
JP	2001-249860	A	9/2001	.....	G06F 13/00
JP	2002-077438	A	3/2002	.....	H04M 11/00
WO	WO 95/05609	A2	2/1995	.....	G01R 27/14
WO	WO 96/42175	A1	12/1996	.....	H04Q 7/22
WO	WO 97/16938	A1	5/1997	.....	H04Q 7/32
WO	WO 97/23104	A1	6/1997	.....	H04Q 7/22
WO	WO 98/38820	A2	9/1998	.....	H04Q 1/72
WO	WO 98/51059	A2	11/1998	.....	H04M 1/72
WO	WO 98/56197	A1	12/1998	.....	H04Q 7/22
WO	WO 99/13629	A1	3/1999	.....	H04M 1/72
WO	WO 99/20070	A2	4/1999	.....	H04Q 7/38
WO	WO 99/34339	A2	7/1999	.....	H04Q 7/22
WO	WO 99/49680	A1	9/1999	.....	H04Q 7/22
WO	WO 99/56262	A1	11/1999	.....	G08B 21/100
WO	WO 99/57875	A2	11/1999	.....	H04M 3/42
WO	WO 00/17021	A1	3/2000	.....	B60R 25/04
WO	WO 00/18175	A2	3/2000	.....	H04Q 9/00
WO	WO 00/56016	A1	9/2000	.....	H04L 12/28
WO	WO 00/70889	A1	11/2000	.....	H04Q 7/08
WO	WO 01/03414	A1	1/2001	.....	H04M 11/00
WO	WO 01/35686	A1	5/2001	.....	H04Q 7/32

OTHER PUBLICATIONS

3GPP (3rd Generation Partnership Project) *3rd Generation Partnership Project; Technical Specification Group Terminals; Characteristics of the USIM Application* (3G TS 31.102, version 3.0.), 104 pages (Jan. 2000).

3GPP (3rd Generation Partnership Project) *3rd Generation Partnership Project; Technical Specification Group Terminals; AT command set for 3GPP User Equipment (UE)* (3G TS 27.007, version 3.4.0, Release 1999), 154 pages (Mar. 2000).

3GPP (3rd Generation Partnership Project) *3rd Generation Partnership Project; Technical Specification Group Terminals; USIM Application Toolkit (USAT)* (3G TS 31.111, version 3.0.0, Release 1999), 138 pages (Apr. 2000).

3GPP (3rd Generation Partnership Project) *3rd Generation Partnership Project; Technical Specification Group Services and System*

3GPP (3rd Generation Partnership Project) *The Mobile Broadband Standard, 3GPP Specification detail, General Packet Radio Service (GPRS); Service description; Stage 2*, 3 pages (Apr. 2014) 3GPP TS 03.60.

AirLink Communications, Inc. "AirLink Communications Releases New Wireless ACE," 1 page (Apr. 1998).

AirLink Communications, Inc. *AirLink News/CDPD in the News*, 1 page (Dec. 1998) (<http://www.archive.org/web/9981212022616/http://www.airlink.com>).

AirLink Communications, Inc. *CDPD Raven, Raven Brochure*, 2 pages (Jan. 1999) (http://www.archive.org/web/19990117024728/http://www.airlink.com/info/rav_mkt.html).

AirLink Communications, Inc. *Airlink Raven/PinPoint CDPD Modem, User's Manual*, 68 pages (Feb. 1999).

AirLink Communications, Inc. *PinPoint Vehicle Installation Guide*, 6 pages (Feb. 2000).

AirLink Communications, Inc. *Raven Installation Guide*, 8 pages (May 2000).

AirLink Communications, Inc. *Wireless ACE Release Notes: "Jul. 12, 2000—ACE version 1.50,"* 3 pages (Aug. 2000).

AirLink Communications, Inc. *Proven Wireless Solutions, Intelligent Transportation System (ITS) Applications*, 1 page (Feb. 2001).

AirLink Communications, Inc. *Proven Wireless Solutions, Telemetry Applications*, 1 page (Feb. 2001).

AirLink Communications, Inc. *Press Release: "AirLink Announces New Raven II CDPD Modem,"* 1 page (Apr. 2001).

AirLink Communications, Inc. *Press Release: "AirLink Communications & Novatel Wireless Enforce Better Communications for the Tampa Police Department,"* 2 pages (May 2001).

AirLink Communications, Inc. *ACE Release Notes: "Jul. 26, 2002—ACE version 1.80.15,"* 5 pages (Oct. 2002).

AirLink Communications, Inc. *AirLink CDPD Modem AT Commands, Quick Reference*, 24 pages (Oct. 2002).

AirLink Communications, Inc. *Raven Firmware Release Notes: "Jan. 25, 2002 Raven II Release 200201D,"* 2 pages (Oct. 2002).

AirLink Communications, Inc. *Wireless ACE, User's Manual*, 48 pages (Dec. 2002).

Akselsen et al. *Telemedicine and ISD*, IEEE Communications Magazine, pp. 46-51 (Jan. 1993).

Auerbach *Handbook of Local Area Networks 1999*, 67 pages (1996).

Azzaro et al. *Provisional Application—U.S. Appl. No. 60/162,249*, dated Oct. 28, 1999 (21 pages).

Bettstetter et al. *GSM Phase 2+ General Packet Radio Service GPRS: Architecture, Protocols, and Air Interface*, IEEE Communications Surveys, <http://www.comsoc.org/pubs/surveys>, vol. 2, No. 3, pp. 2-14 (1999).

BioPhone BIOPHONE 3502u, *Instruction & Troubleshooting Manual*, 149 pages (May 1978).

Blasch et al. "Georgia Tech Aerial Robotics System Competition Entry," *Georgia Institute of Technology School of Aerospace*, 10 pages (Mar. 1994).

Bult et al. *Low Power Systems for Wireless Microsensors*, UCLA Electrical Engineering Department, Los Angeles, CA and Rockwell Science Center, Thousand Oaks, CA, 5 pages (1996).

Carman et al./NAI Labs *A Communications Security Architecture and Cryptographic Mechanisms for Distributed Sensor Networks*, DARPA/ITO Sensor IT Workshop, 24 pages (Oct. 1999).

CDPD Forum, Inc. "Circuit Switched—Cellular Digital Packet Data," Part 1024, Release 1.5, 90 pages (Jun. 1995).

CDPD Forum, Inc. "CS CDPD Modem Bank Management Protocol (MBMP)," Part 1025, Release 1.5, 48 pages (Jun. 1995).

CDPD Forum, Inc. "CS CDPD Accounting Service and Protocol," Part 1026, Release 1.5, 20 pages (Jun. 1995).

Chandrakasan et al. *Design Considerations for Distributed Microsensor Systems*, Department of EECS, Massachusetts Institute of Technology, Cambridge, MA, IEEE 1999, Custom Integrated Circuits Conference, 8 Pages (1999).

Davies "A Brief History of Cryptography," *Information Security Technical Report*, vol. 2, No. 2, pp. 14-17 (1997).

DeRose "The Wireless Data Handbook," 4th Edition, 399 pages (1999).

(56)

References Cited

OTHER PUBLICATIONS

Electronic Compliance Laboratories, Inc. EMI Test Report on Symphony ISA Card; Prepared for Proxim, Test Report No. A806003, 42 pages (Jun. 1998).

European Telecommunications Standards Institute (ETSI) *Release Note: Recommendation GSM 02.16, International MS Equipment Identities, European digital cellular telecommunication system (Phase 1)*; *GSM Technical Specification*, Version 3.0.1, 9 pages (Feb. 1992).

European Telecommunications Standards Institute (ETSI) *Digital cellular telecommunications system (Phase 2+)*; Network architecture (GSM 03.02, version 5.0.0), TS/SMG-030302Q, 20 pages (Mar. 1996).

European Telecommunications Standards Institute (ETSI) *GSM Technical Specification: Digital cellular telecommunications system (Phase 2+); Physical Layer on the radio path; General description* (GSM 05.01, version 5.0.0), 20 pages (May 1996) Reference: TS/SMG-020501Q.

European Telecommunications Standards Institute (ETSI) *Digital cellular telecommunications system (Phase 2+); Specification of the Subscriber Identity Module-Mobile Equipment (SIM-ME) interface* (GSM 11.11, version 5.3.0), TS/SMG-091111QR1, 113 pages (Jul. 1996).

European Telecommunications Standards Institute (ETSI) *Digital cellular telecommunications system (Phase 2+); Specification of the SIM Application Toolkit for the Subscriber Identity Module-Mobile Equipment (SIM-ME) interface* (GSM 11.14, version 5.1.0), TS/SMG-091114Q, 54 pages (Aug. 1996).

European Telecommunications Standards Institute (ETSI) *Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); Service description Stage 2* (GSM 03.60, version 6.3.2, Release 1997), 107 pages (Jul. 1997) EN 301 344.

European Telecommunications Standards Institute (ETSI) *Digital cellular telecommunications system (Phase 2+); Specification of the SIM Application Toolkit for the Subscriber Identity Module-Mobile Equipment (SIM-ME) interface*, GSM 11.14, version 5.4.0), TS/SMG-091114Q, 56 pages (Jul. 1997).

European Telecommunications Standards Institute (ETSI) *GSM Technical Specification—Digital cellular telecommunications system (Phase 2+); Use of Data Terminal Equipment-Data Circuit terminating; Equipment (DTE-DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)* (GSM 07.05, version 5.5.0, Release 1998), 69 pages (Jan. 1998) Reference: GTS/SMG-040705QR.

ETSI European Telecommunications Standards Institute (ETSI) *Digital cellular telecommunications system (Phase 2+); AT command set for GSM Mobile Equipment (ME)* (GSM 07.07, version 5.5.0), RE/SMG-040707QR3, 97 pages (Feb. 1998).

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); Mobile Stations (MS) features* (GSM 02.07, version 6.1.0, Release 97), 22 pages (Jul. 1998) TS 100 906.

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); Security Mechanisms for the SIM application toolkit; Stage 2* (GSM 03.48, version 6.1.0, Release 97), 20 pages (Jul. 1998) TS 101 181.

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); Specification of the Subscriber Identity Module-Mobile Equipment (SIM-ME) interface* (GSM 11.11, version 6.1.0, Release 1997), 125 pages (Jul. 1998) TS 100 977.

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); Specification of the SIM Application Toolkit for the Subscriber Identity Module-Mobile Equipment (SIM-ME) interface* (GSM 11.14, version 7.1.0, Release 1998), 98 pages (Nov. 1998).

SIM application toolkit for the Subscriber Identity Module-Mobile Equipment (SIM-ME) interface (GSM 11.14, version 6.2.0, Release 1997), 82 pages (Nov. 1998).

European Telecommunications Standards Institute (ETSI) *Digital cellular telecommunications system (Phase 2+); Use of Data Terminal Equipment-Data Circuit terminating; Equipment (DTE-DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)* (GSM 07.05, version 7.0.0, Release 1998), Available SMG only, 66 pages (Mar. 1999).

European Telecommunications Standards Institute (ETSI) *Digital cellular telecommunications system (Phase 2+); Specification of the Subscriber Identity Module-Mobile Equipment (SIM-ME) interface* (GSM 11.11, version 7.2.0, Release 1998), SMG version only, not for publication, 133 pages (Mar. 1999).

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); Specification of the SIM Application Toolkit for the Subscriber Identity Module-Mobile Equipment (SIM-ME) interface* (GSM 11.14, version 7.3.0, Release 1998) 101 pages, (Jul. 1999) TS 101 267.

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); Security Mechanisms for the SIM application toolkit; Stage 2* (GSM 03.48, version 7.0.1, Release 1998), 21 pages (Jul. 1999) ETSI TS 101 181.

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); Mobile Station (MS) supporting GPRS* (GSM 07.60, version 7.0.0, Release 1998), 47 pages (Jul. 1999) ETSI TS 101 356.

European Telecommunications Standards Institute (ETSI) *Technical specification: Digital cellular telecommunications system (Phase 2+); AT command set for GSM Mobile Equipment (ME)* (GSM 07.07, version 7.3.0, Release 1998), 125 pages (Jul. 1999) ETSI TS 100 916.

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); GSM Release 1999 Specifications* (GSM 01.01, version 0.4.0, Release 1999), 22 pages (Oct. 1999).

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); GSM Release 1999 Specifications* (GSM 01.01, version 1.0.0, Release 1999), 23 pages (Nov. 1999).

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); Subscriber Identity Module Application Programming Interface (SIM API); SIM API for Java Card™; Stage 2* (GSM 03.19, version 7.0.0, Release 1998), 22 pages (Nov. 1999) ETSI TS 101 476.

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); AT command set for GSM Mobile Equipment (ME)* (GSM 07.07, version 6.4.0, Release 1997), 116 pages (Nov. 1999) ETSI TS 100 916.

European Telecommunications Standards Institute (ETSI) *Technical specification: Digital cellular telecommunications system (Phase 2+); AT command set for GSM Mobile Equipment (ME)* (GSM 07.07, version 7.5.0, Release 1998), 127 pages (Dec. 1999) ETSI TS 100 916.

European Telecommunications Standards Institute (ETSI) *Digital cellular telecommunications system (Phase 2+); AT command set for GSM Mobile Equipment (ME)* (GSM 07.07, version 5.9.1, Release 1996), 98 pages (Dec. 1999) ETS 300 916.

European Telecommunications Standards Institute (ETSI) *Digital cellular telecommunications system (Phase 2+); Specification of the Subscriber Identity Module-Mobile Equipment (SIM-ME) interface*, (GSM 11.11, version 7.4.0, Release 1998), 134 pages (Dec. 1999).

European Telecommunications Standards Institute (ETSI) *Technical Specification: Digital cellular telecommunications system (Phase 2+); (GSM); Universal Mobile Telecommunications System (UMTS); Use of Data Terminal Equipment—Data Circuit terminating; Equipment (DTE-DCE) interface for Cell Broadcast Service (CBS)* (3G TS

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