

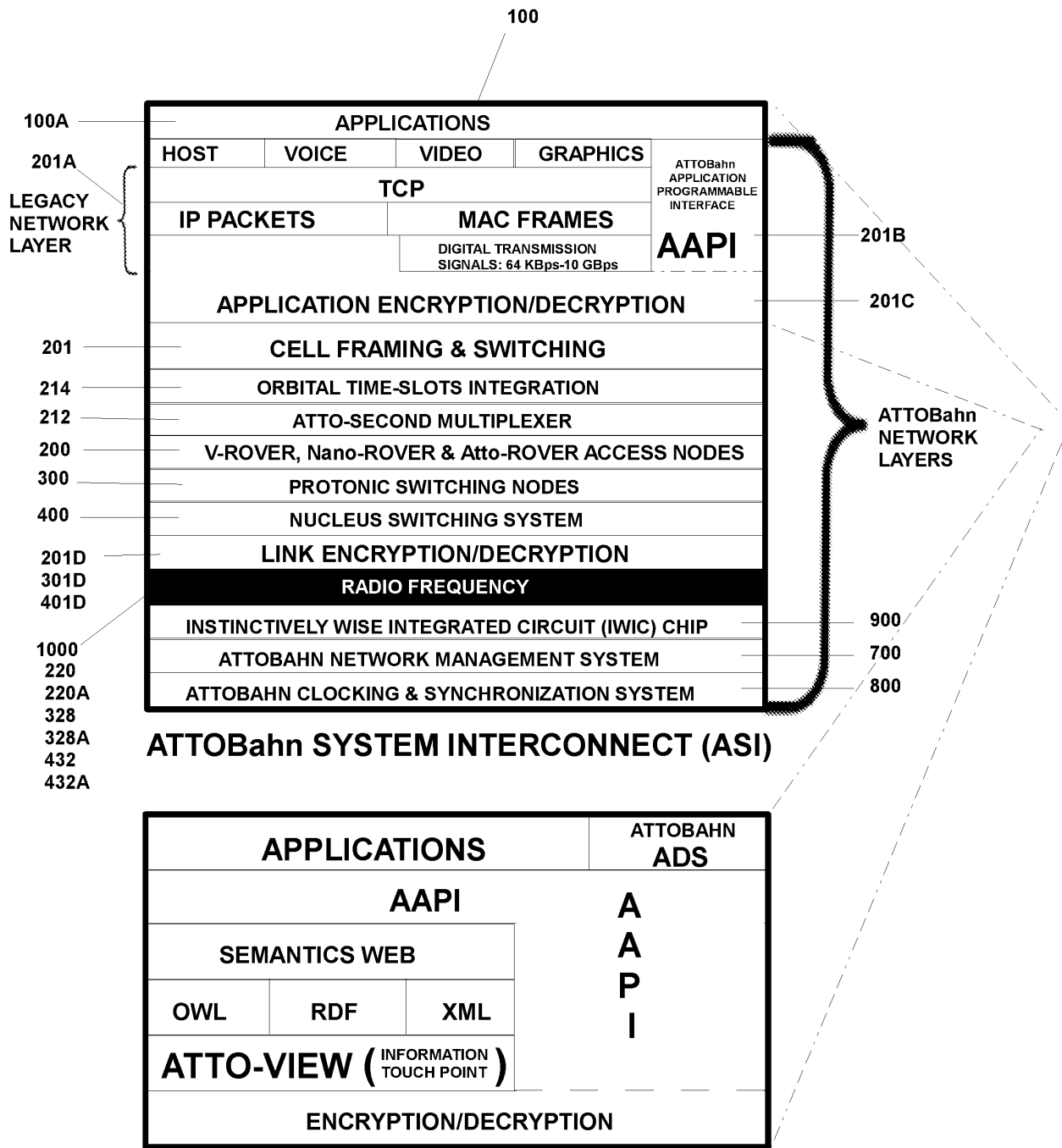


FIGURE 1

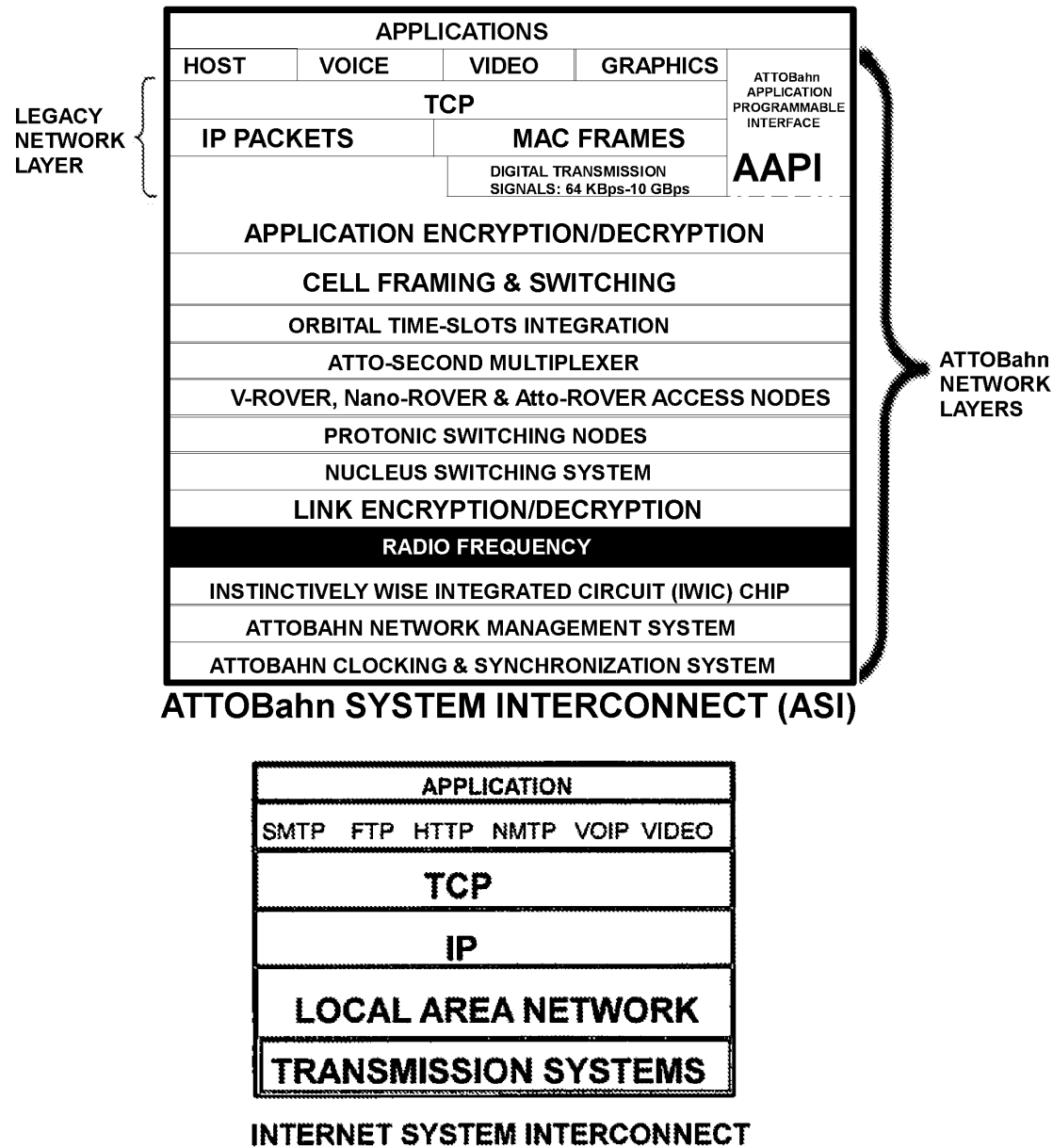


FIGURE 2

ATTOBahn NETWORK HIERARCHY

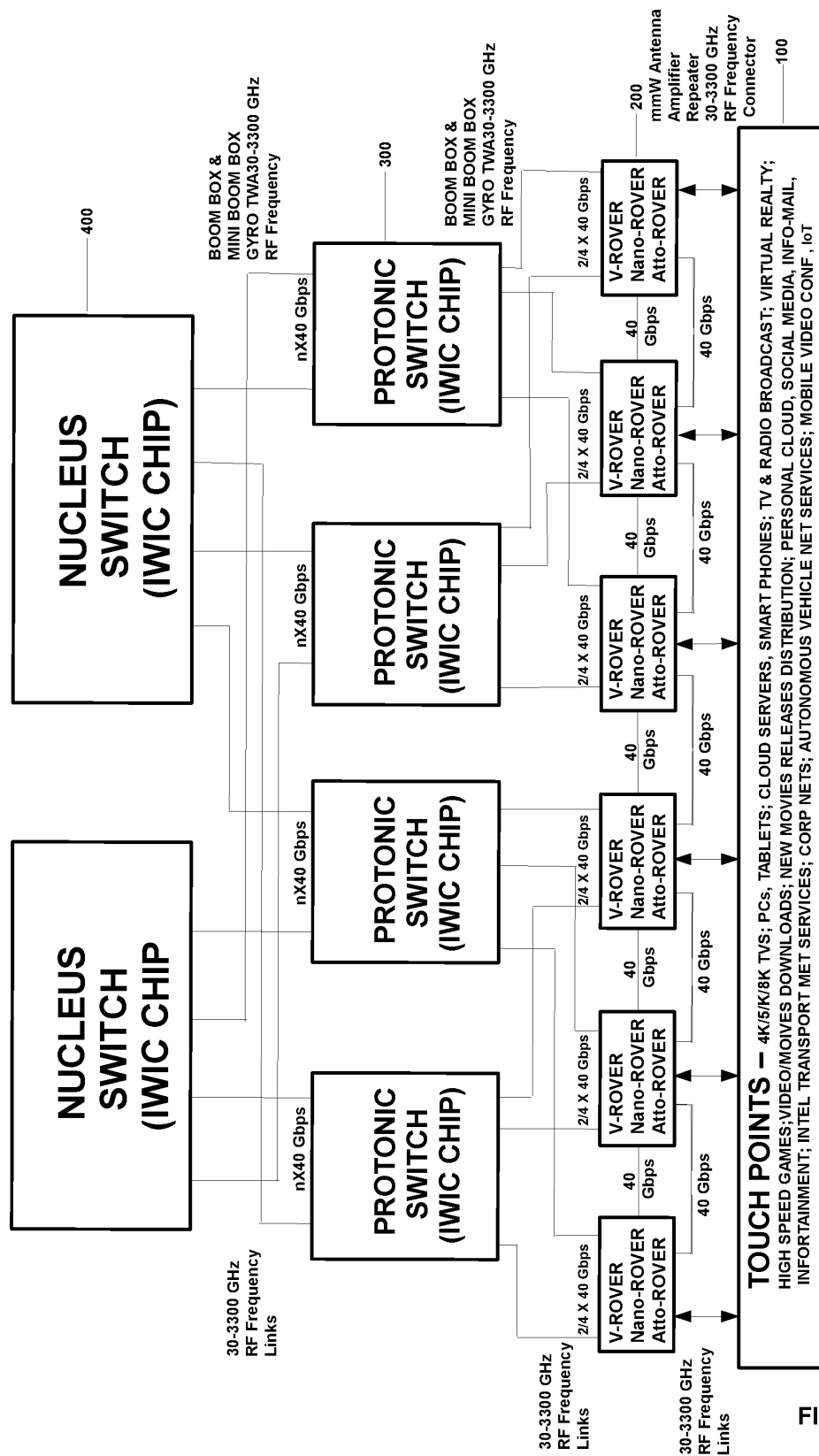
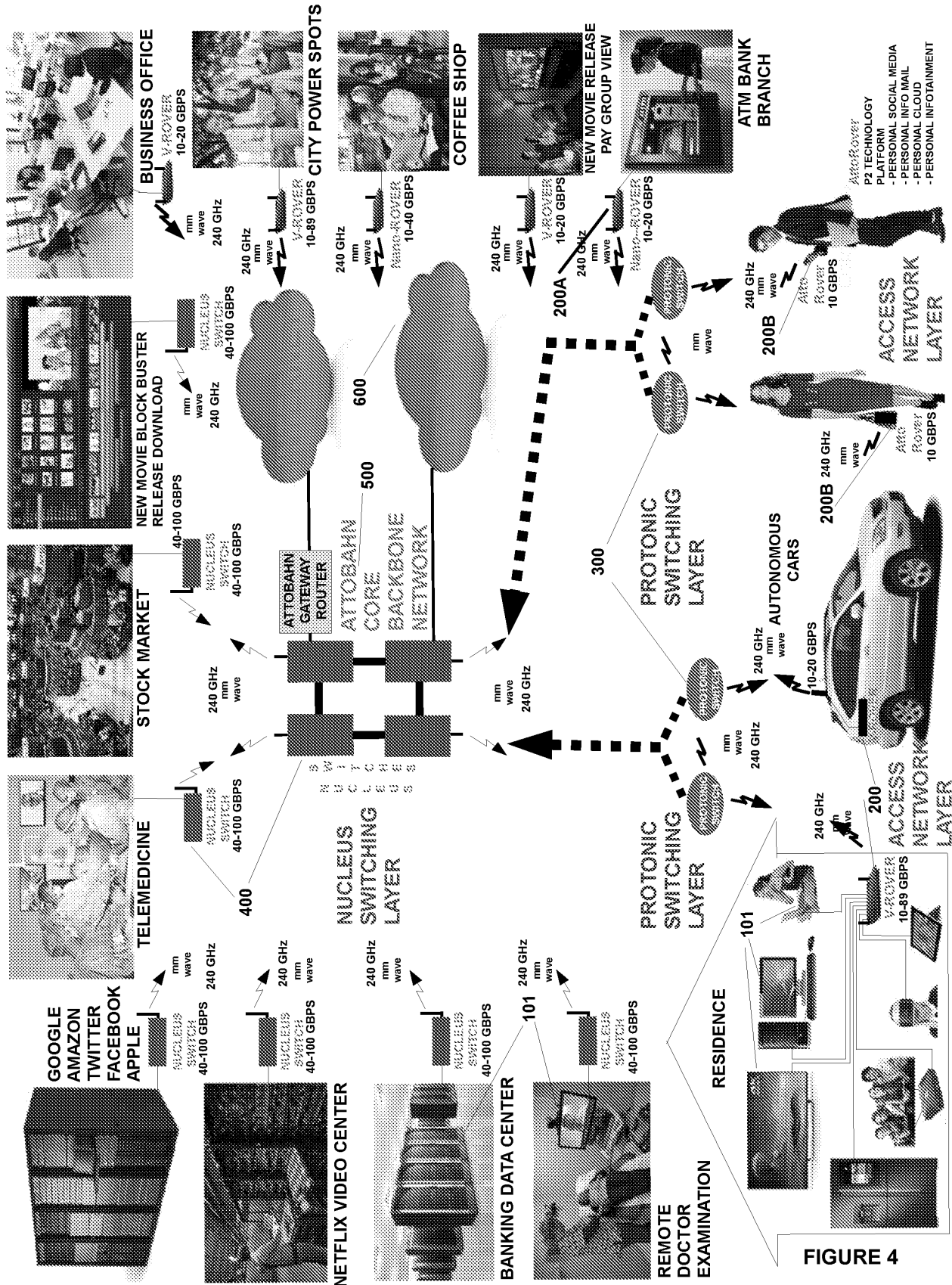


FIGURE 3



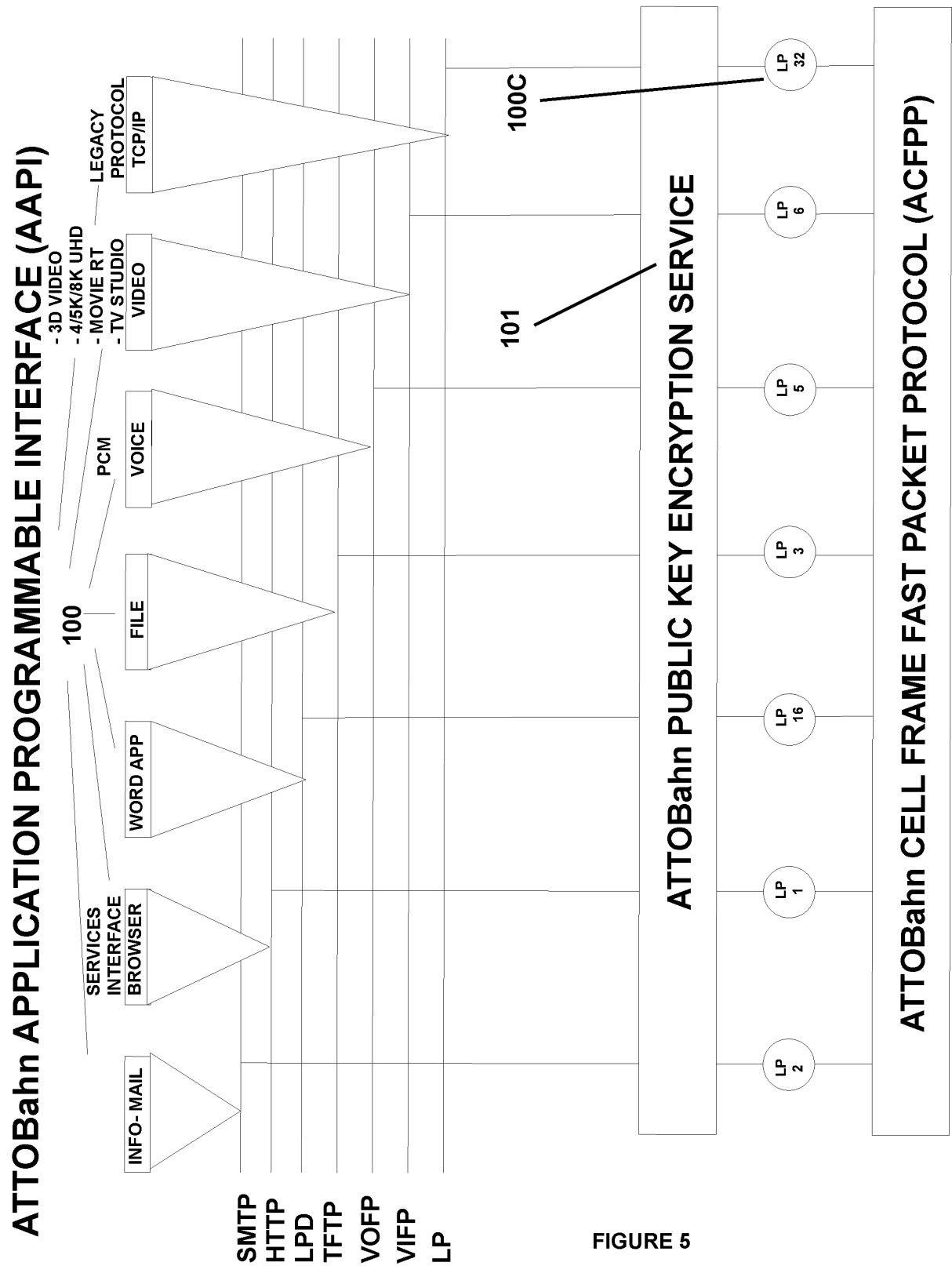


FIGURE 5

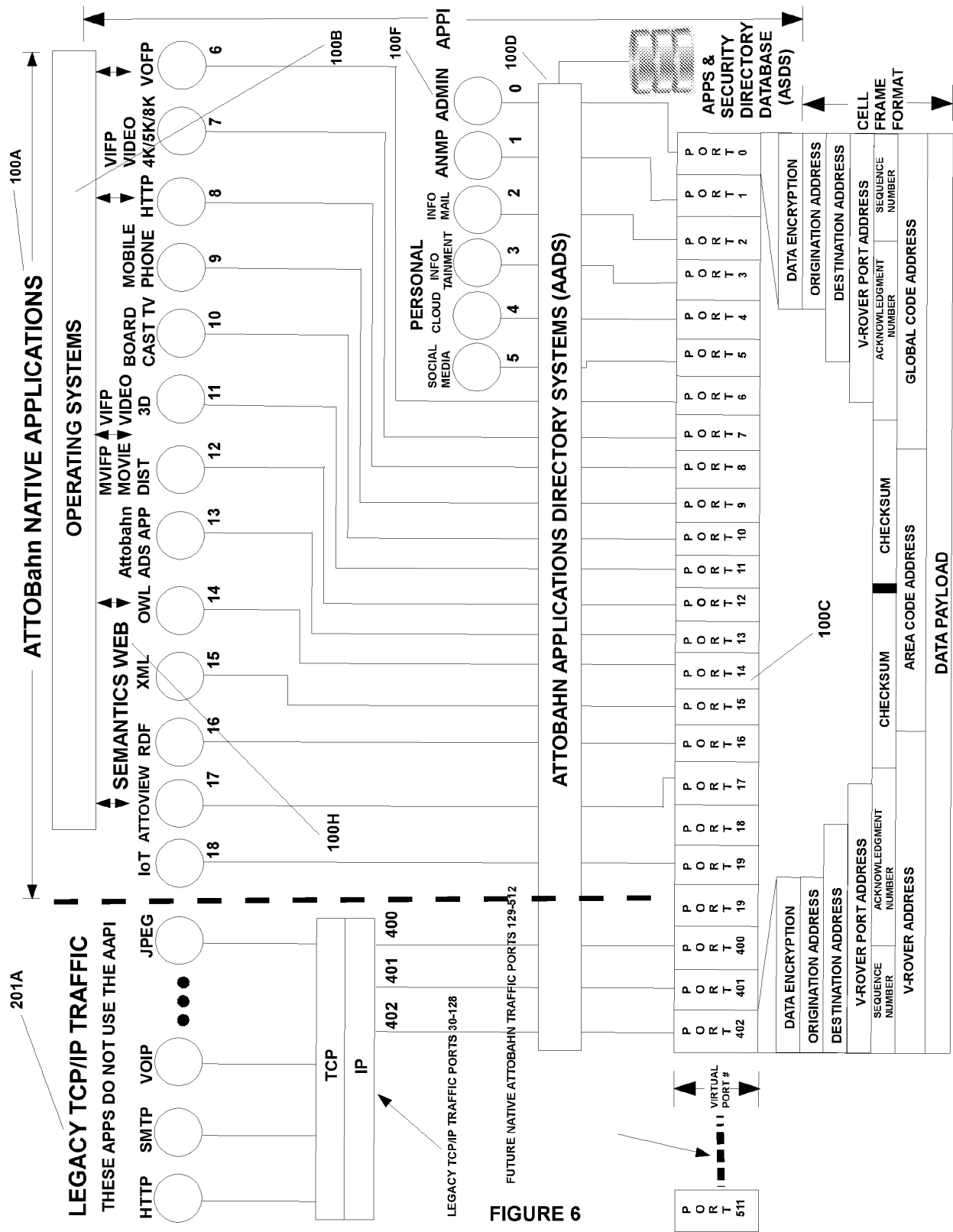


FIGURE 6

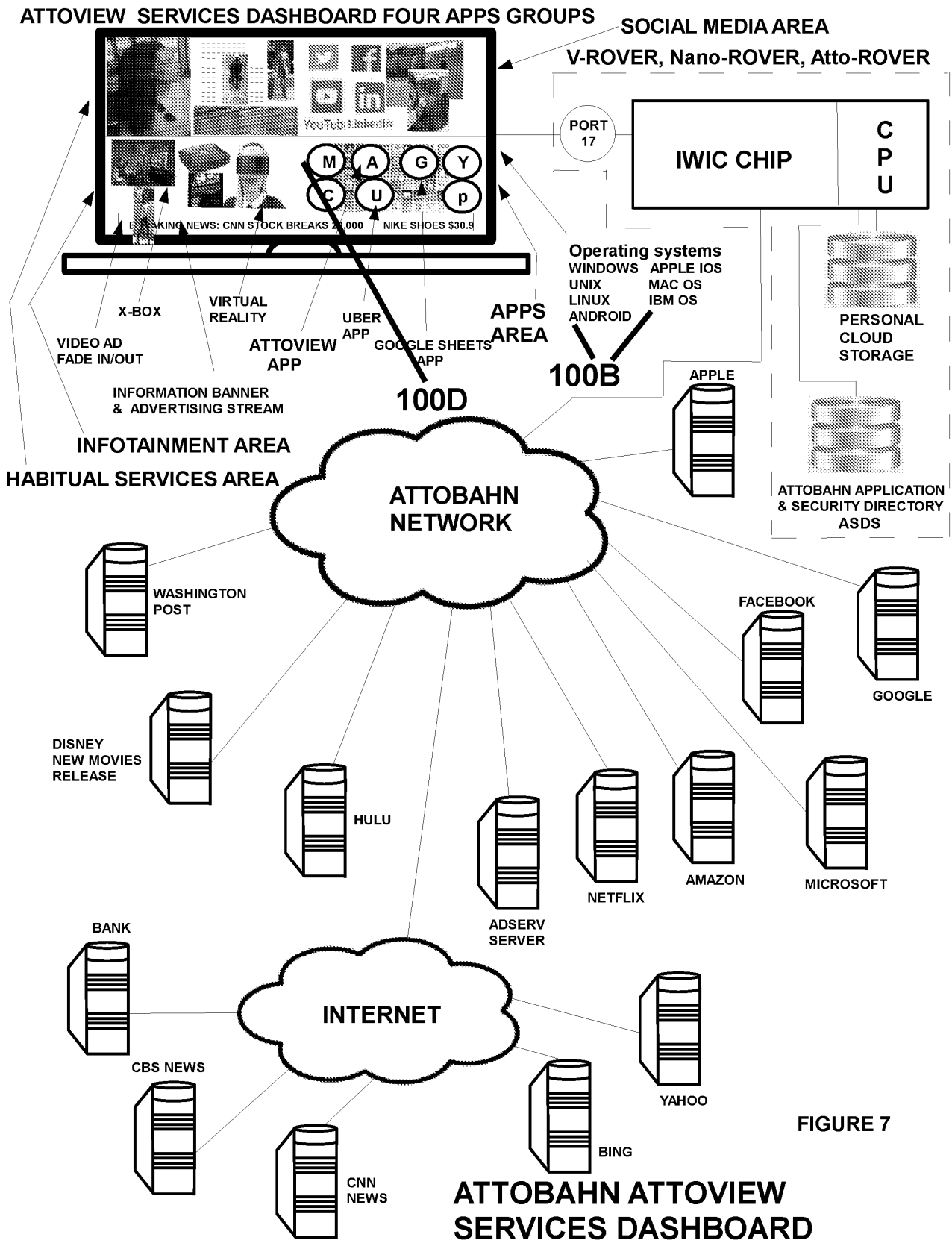
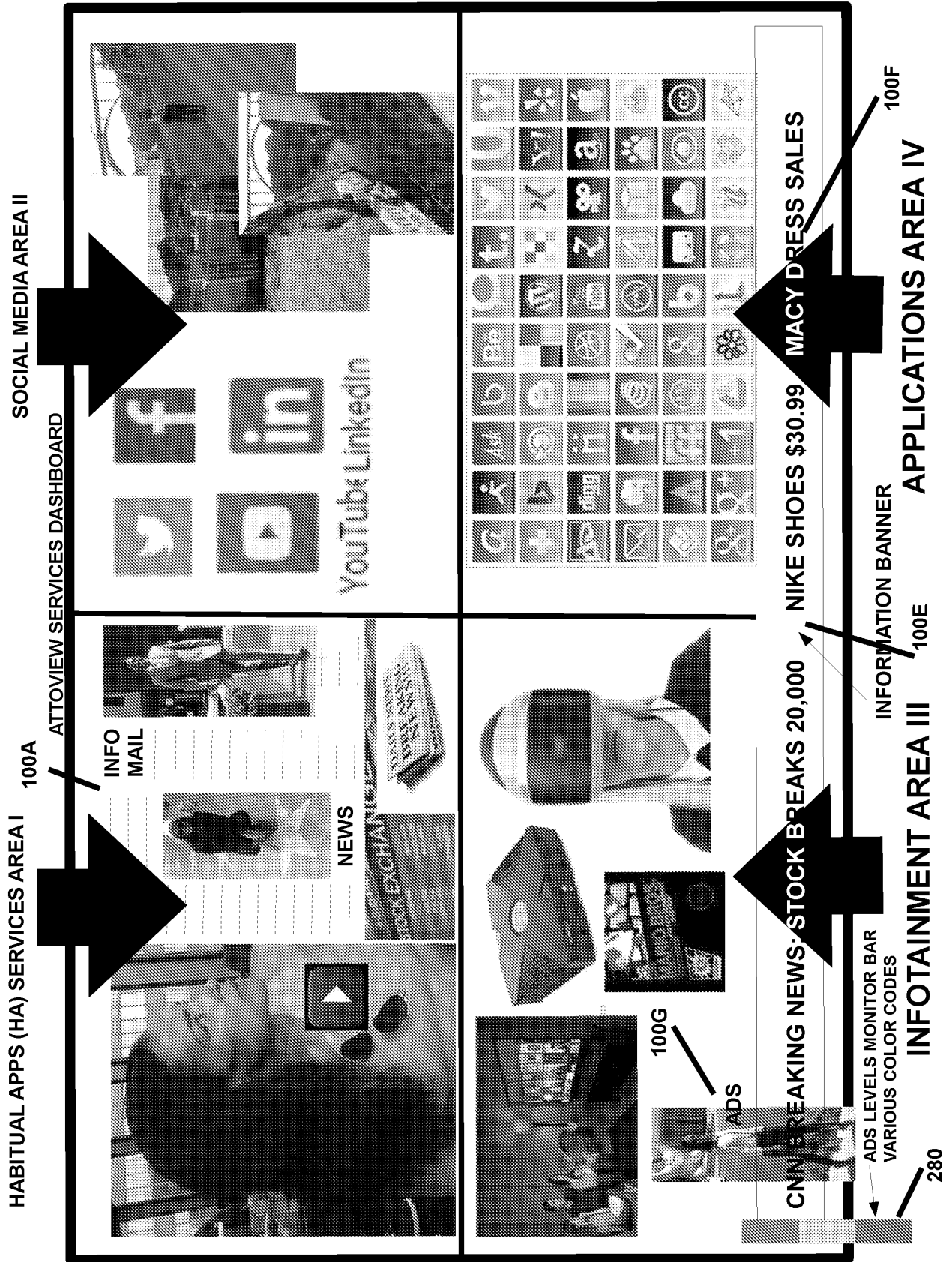
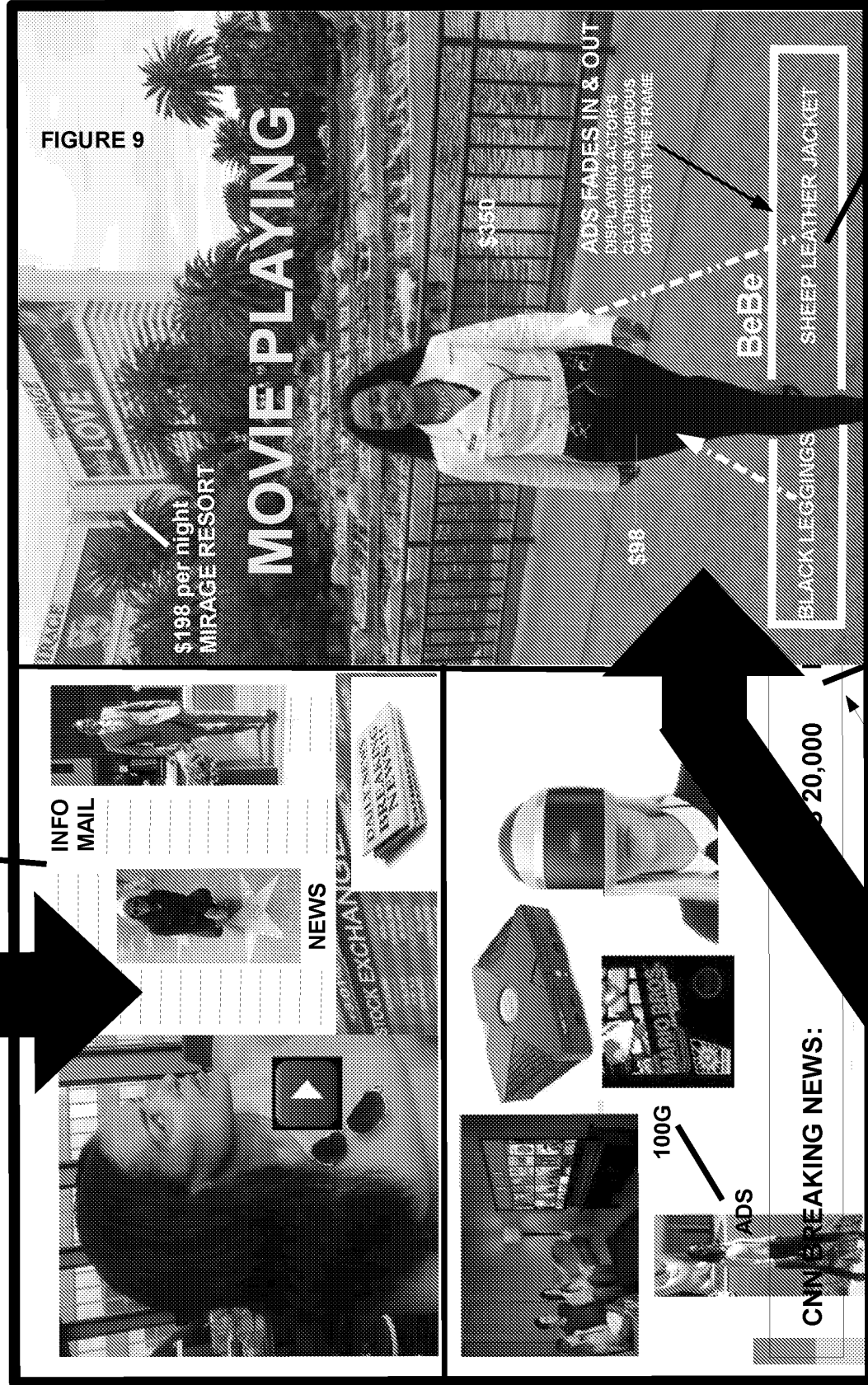


FIGURE 7



HABITUAL APPS (HA) SERVICES AREA | ATTOVIEW SERVICES DASHBOARD | ADVERTISEMENT LEVEL MONITORING SYSTEM | SOCIAL MEDIA AREA II

100A



ATTOBahn API CELL FRAME ADDRESS SCHEMA

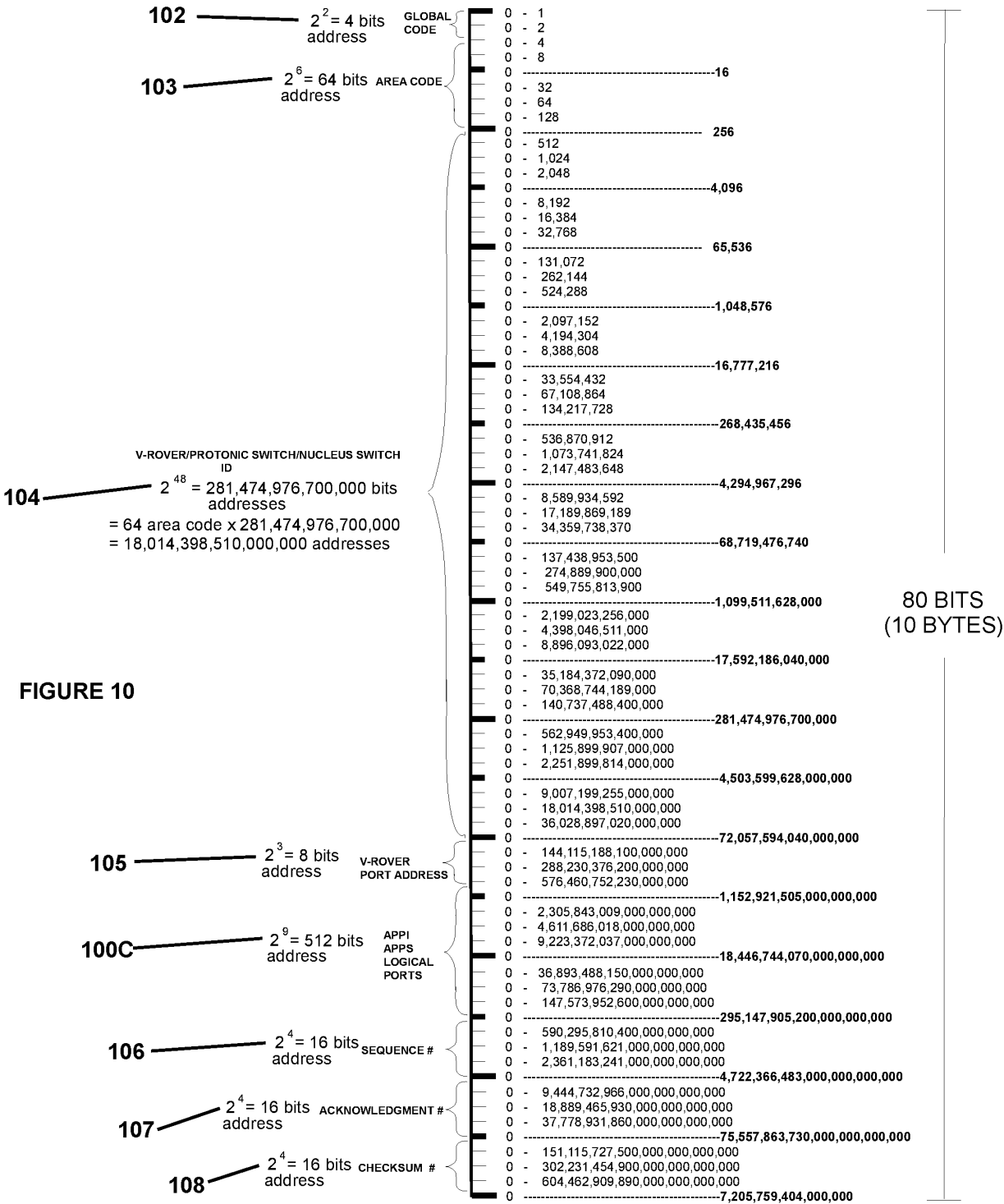


FIGURE 10

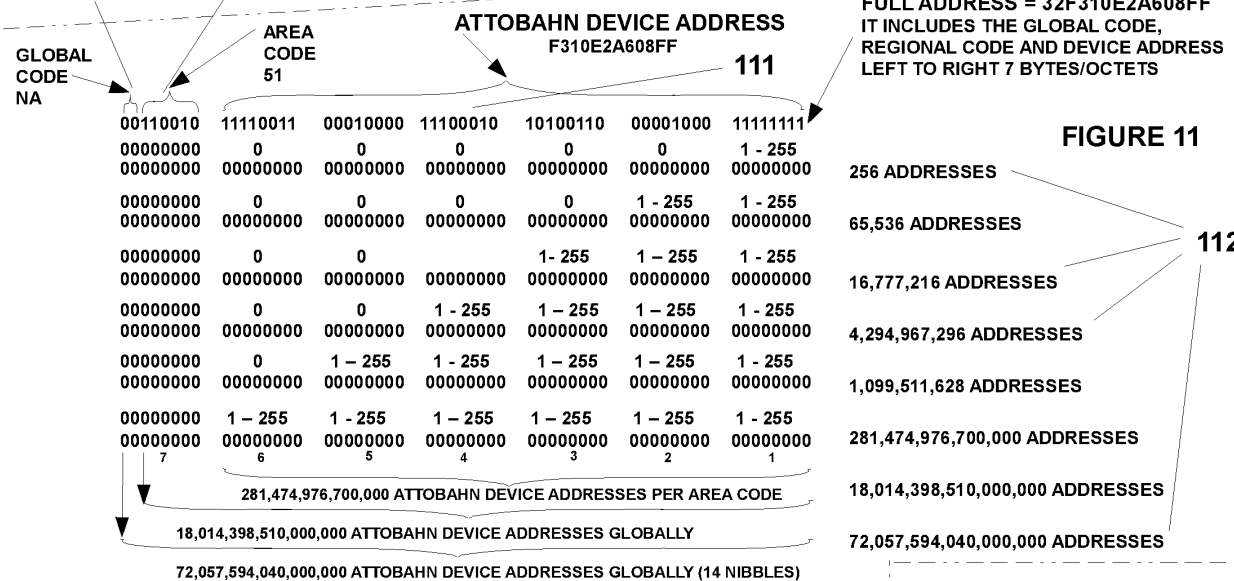
109 **ATTOBAHN DEVICES ADDRESSES**

ADDRESS = 32F310E2A608FF

102
103

GLOBAL CODE NA	AREA CODE 01-16	AREA CODE 17-32	AREA CODE 33-48	AREA CODE 49-64	GLOBAL CODE EMEA	AREA CODE 01-16	AREA CODE 17-32	AREA CODE 33-48	AREA CODE 49-64
00	000000 1	010000 17	100000 33	110000 49	01	000000 1	010000 17	100000 33	110000 49
	000001 2	010001 18	100001 34	110001 50		000001 2	010001 18	100001 34	110001 50
	000010 3	010010 19	100010 35	110010 51		000010 3	010010 19	100010 35	110010 51
	000011 4	010011 20	100011 36	110011 52		000011 4	010011 20	100011 36	110011 52
	000100 5	010100 21	100100 37	110100 53		000100 5	010100 21	100100 37	110100 53
	000101 6	010101 22	100101 38	110101 54		000101 6	010101 22	100101 38	110101 54
	000110 7	010110 23	100110 39	110110 55		000110 7	010110 23	100110 39	110110 55
	000111 8	010111 24	100111 40	110111 56		000111 8	010111 24	100111 40	110111 56
	001000 9	011000 25	101000 41	111000 57		001000 9	011000 25	101000 41	111000 57
	001001 10	011001 26	101001 42	111001 58		001001 10	011001 26	101001 42	111001 58
	001010 11	011010 27	101010 43	111010 59		001010 11	011010 27	101010 43	111010 59
	001011 12	011011 28	101011 44	111011 60		001011 12	011011 28	101011 44	111011 60
	001100 13	011100 29	101100 45	111100 61		001100 13	011100 29	101100 45	111100 61
	001101 14	011101 30	101101 46	111101 62		001101 14	011101 30	101101 46	111101 62
	001110 15	011110 31	101110 47	111110 63		001110 15	011110 31	101110 47	111110 63
	001111 16	011111 32	101111 48	111111 64		001111 16	011111 32	101111 48	111111 64

GLOBAL CODE ASPAC	AREA CODE 01-16	AREA CODE 17-32	AREA CODE 33-48	AREA CODE 49-64	GLOBAL CODE CCSA	AREA CODE 01-16	AREA CODE 17-32	AREA CODE 33-48	AREA CODE 49-64
10	000000 1	010000 17	100000 33	110000 49	11	000000 1	010000 17	100000 33	110000 49
	000001 2	010001 18	100001 34	110001 50		000001 2	010001 18	100001 34	110001 50
	000010 3	010010 19	100010 35	110010 51		000010 3	010010 19	100010 35	110010 51
	000011 4	010011 20	100011 36	110011 52		000011 4	010011 20	100011 36	110011 52
	000100 5	010100 21	100100 37	110100 53		000100 5	010100 21	100100 37	110100 53
	000101 6	010101 22	100101 38	110101 54		000101 6	010101 22	100101 38	110101 54
	000110 7	010110 23	100110 39	110110 55		000110 7	010110 23	100110 39	110110 55
	000111 8	010111 24	100111 40	110111 56		000111 8	010111 24	100111 40	110111 56
	001000 9	011000 25	101000 41	111000 57		001000 9	011000 25	101000 41	111000 57
	001001 10	011001 26	101001 42	111001 58		001001 10	011001 26	101001 42	111001 58
	001010 11	011010 27	101010 43	111010 59		001010 11	011010 27	101010 43	111010 59
	001011 12	011011 28	101011 44	111011 60		001011 12	011011 28	101011 44	111011 60
	001100 13	011100 29	101100 45	111100 61		001100 13	011100 29	101100 45	111100 61
	001101 14	011101 30	101101 46	111101 62		001101 14	011101 30	101101 46	111101 62
	001110 15	011110 31	101110 47	111110 63		001110 15	011110 31	101110 47	111110 63
	001111 16	011111 32	101111 48	111111 64		001111 16	011111 32	101111 48	111111 64

102
103

ATTOBAHN USER UNIQUE ADDRESS & APP EXTENSION

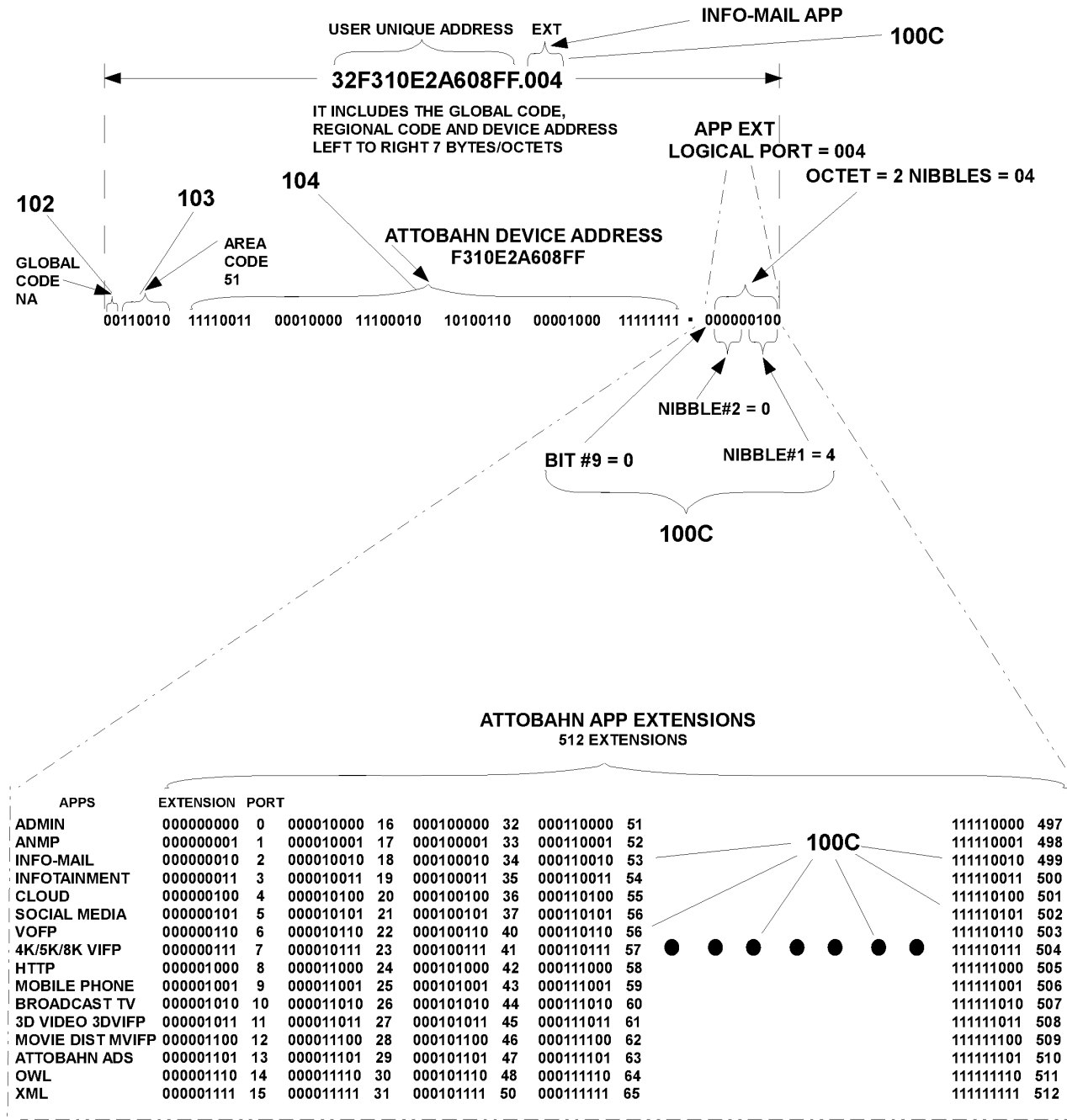


FIGURE 12

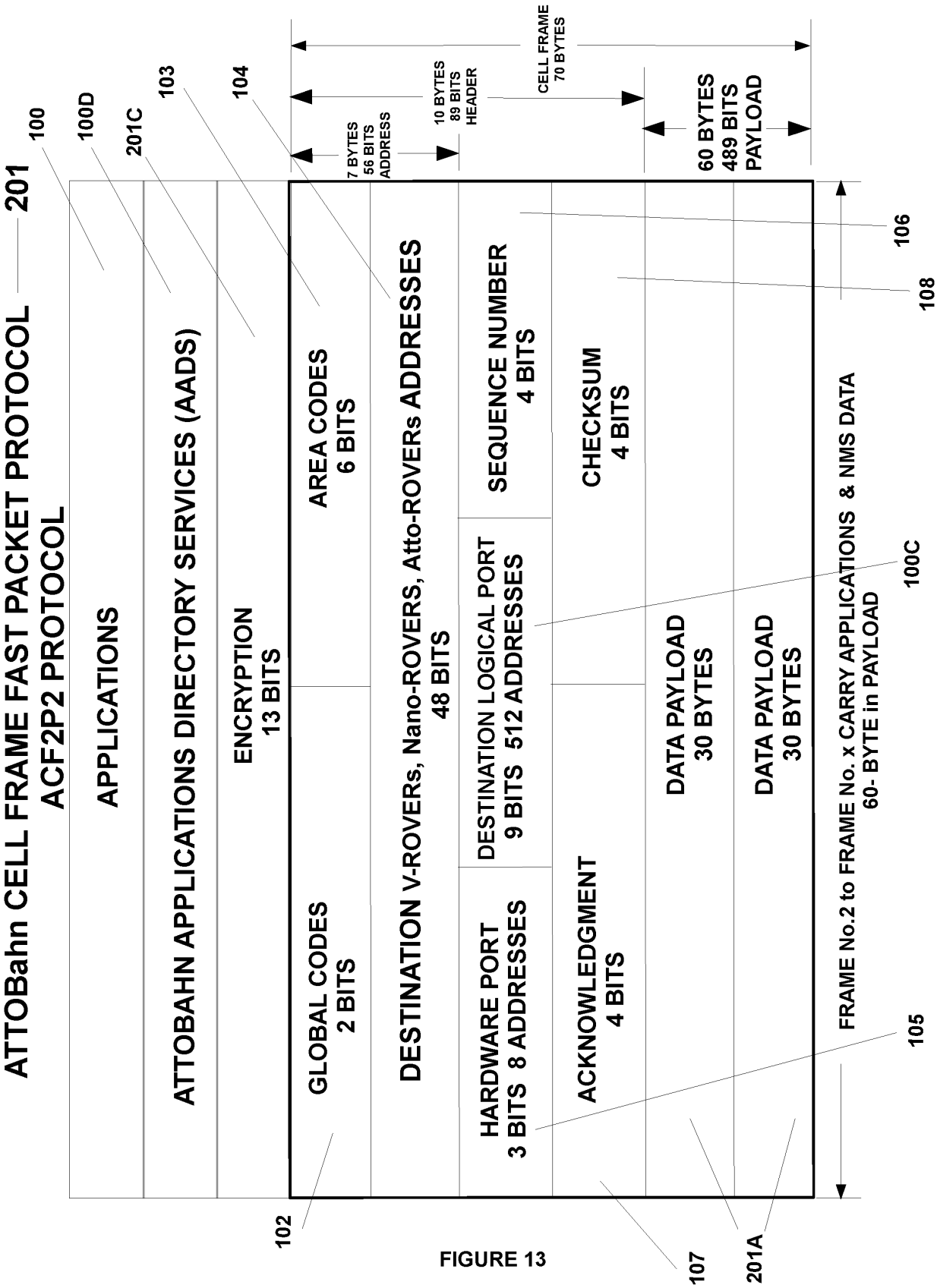
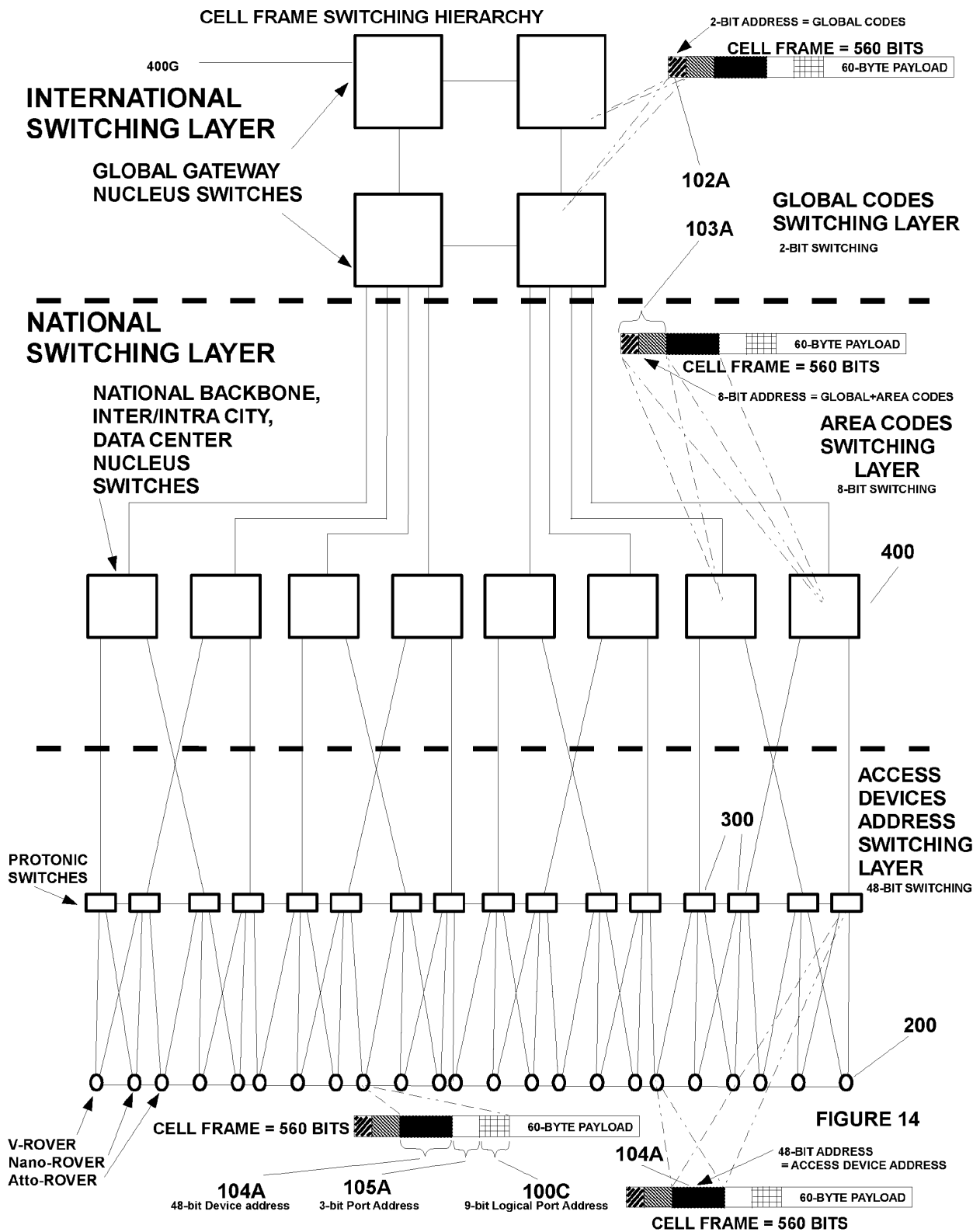
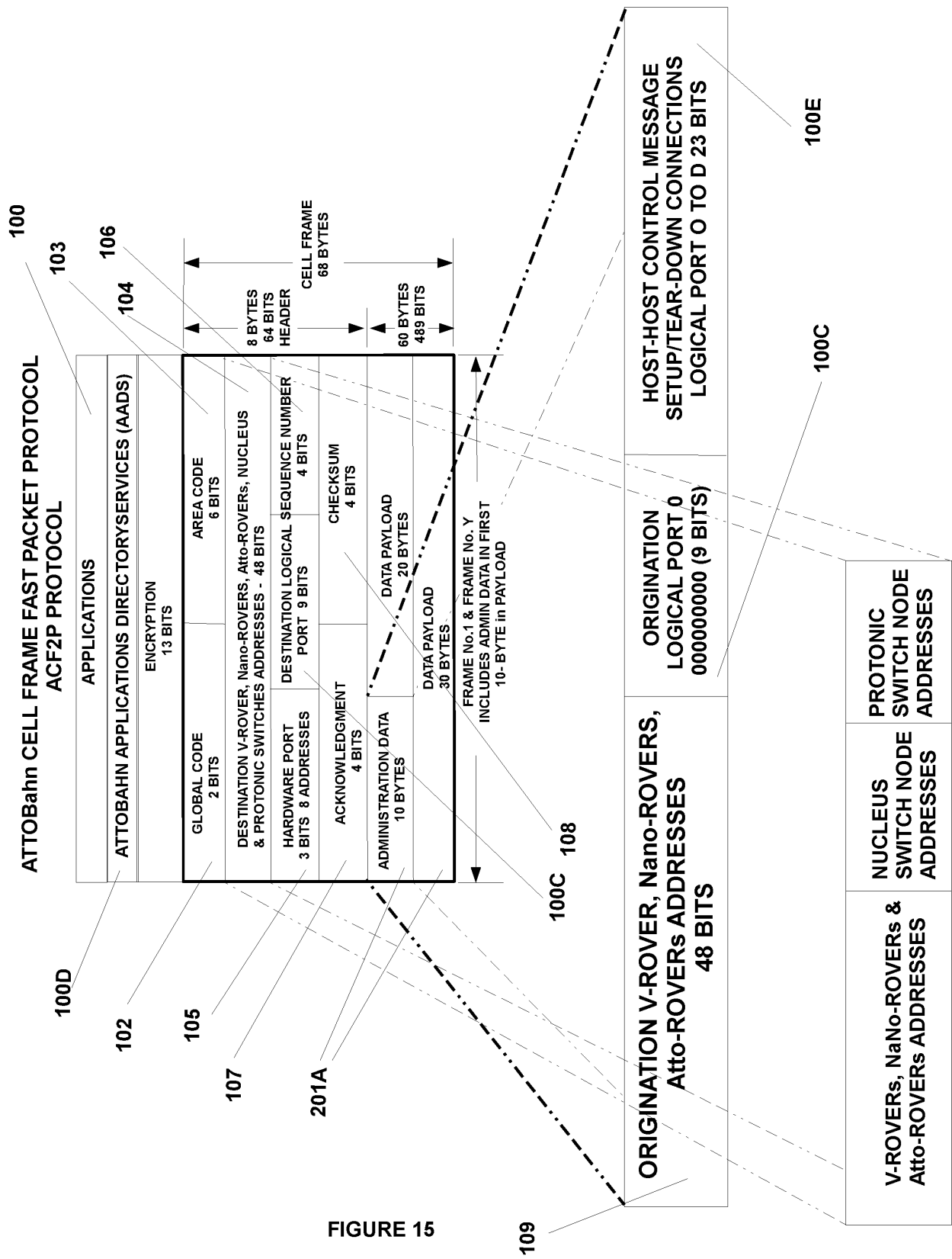
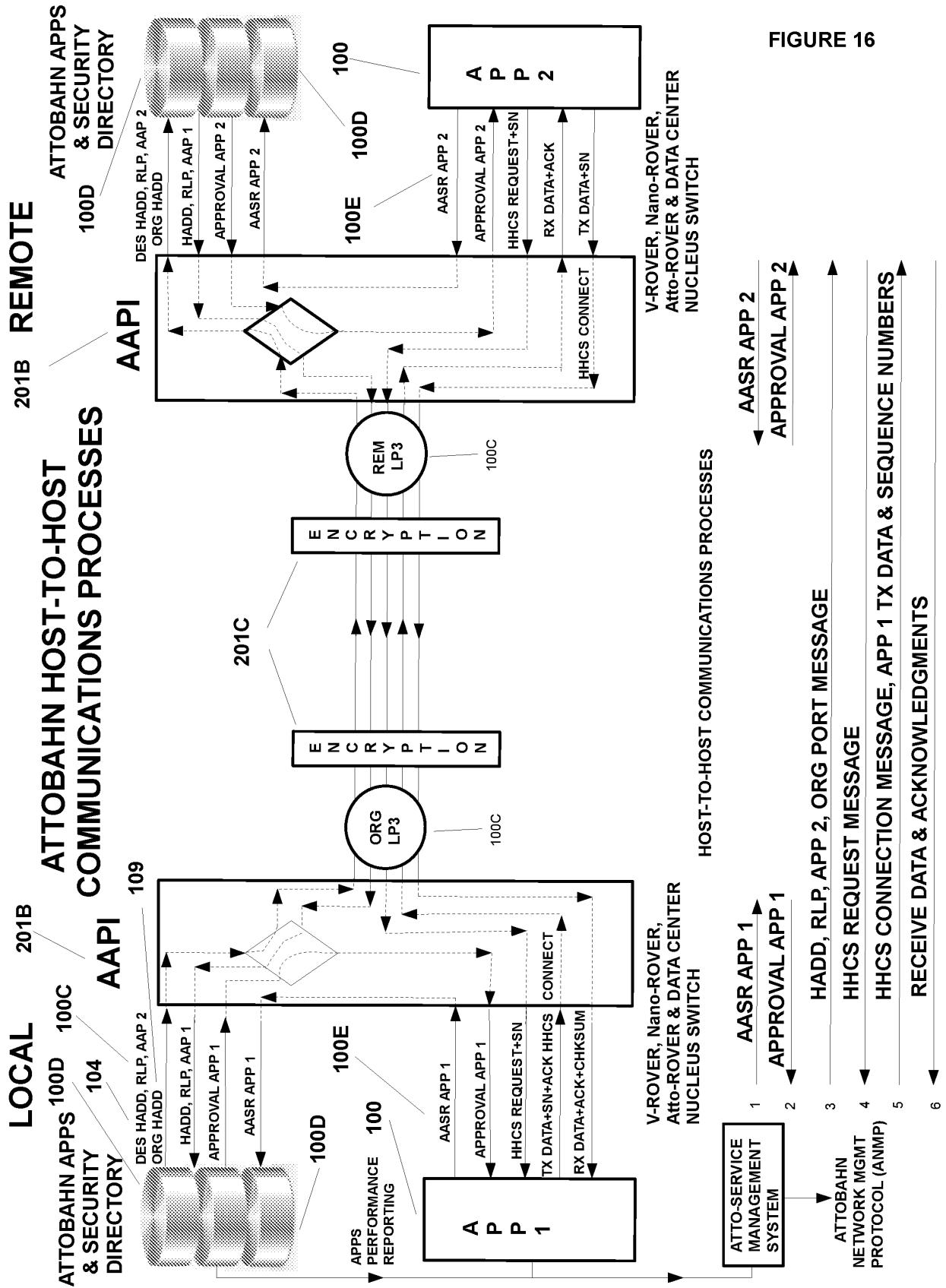
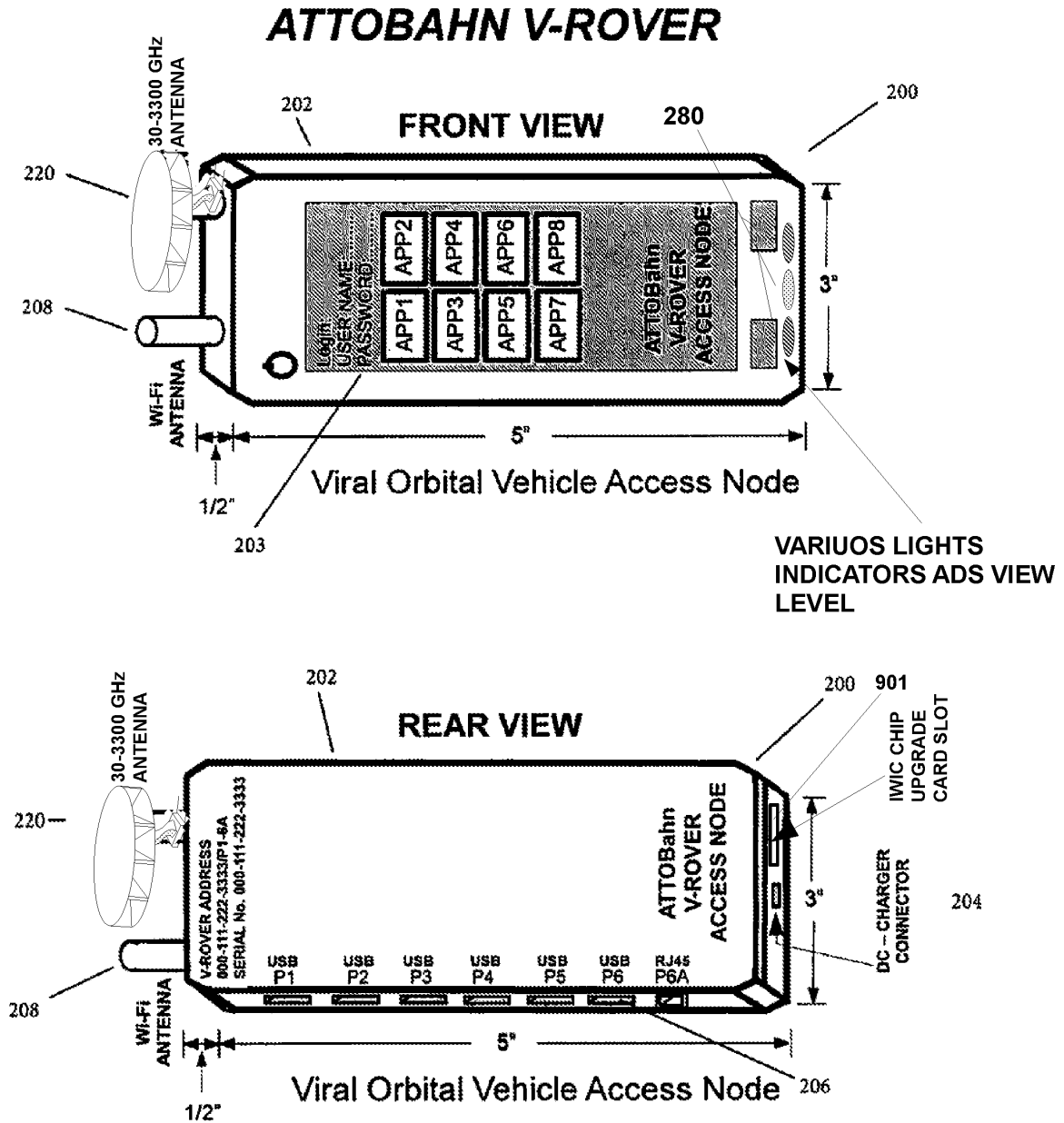


FIGURE 13









Viral Orbital Vehicle Access Node PHYSICAL LAYOUT

FIGURE 17

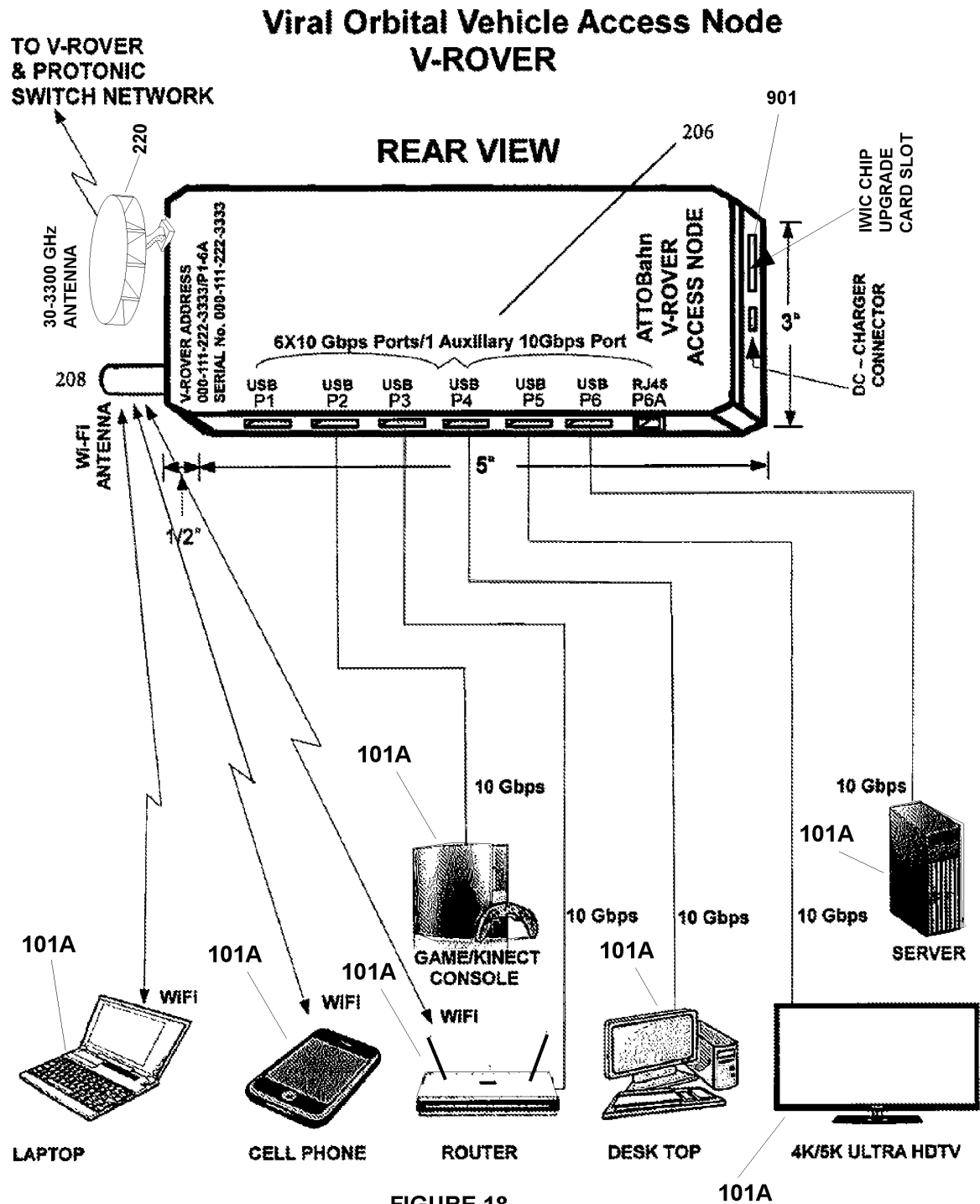


FIGURE 18

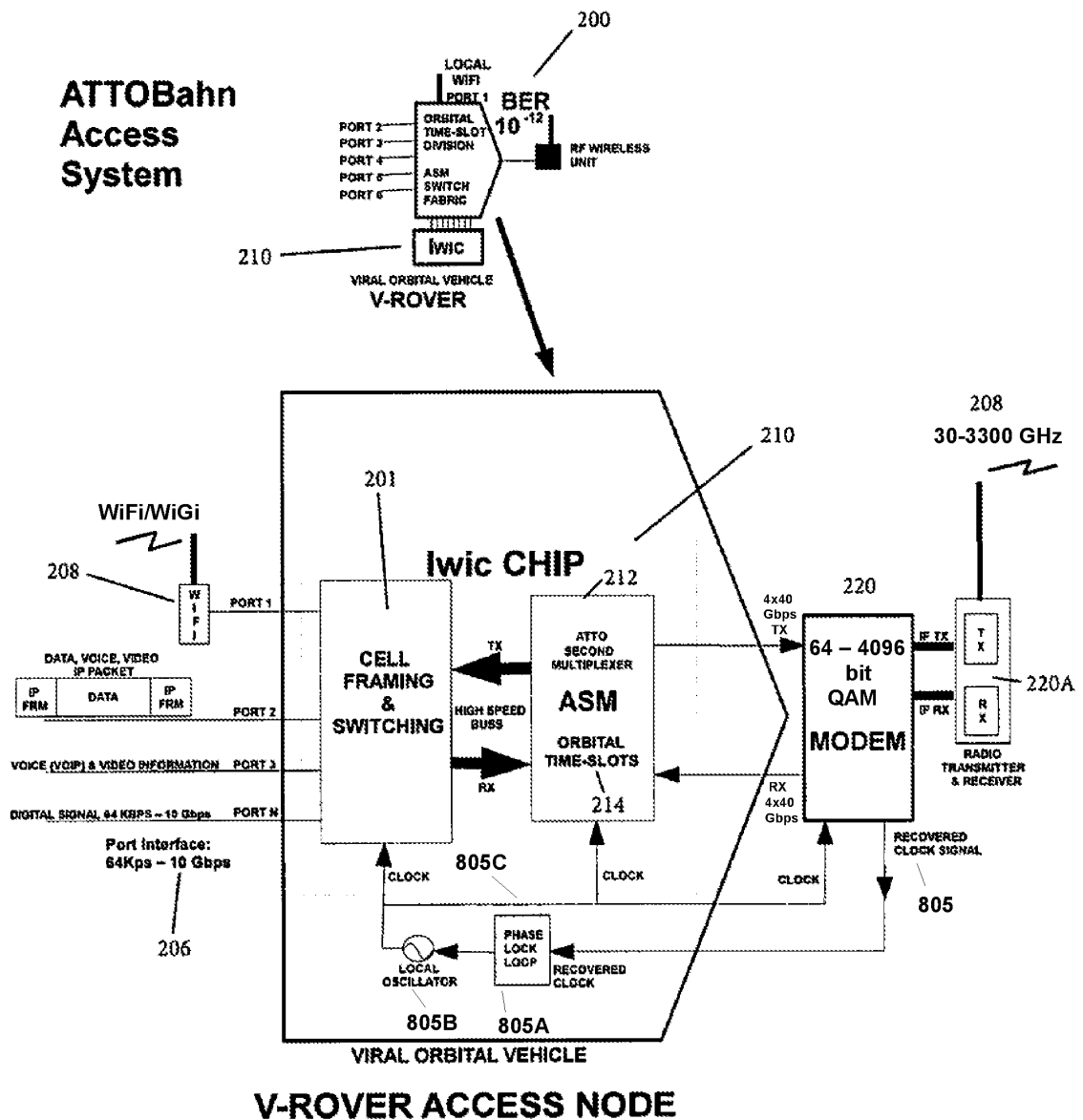
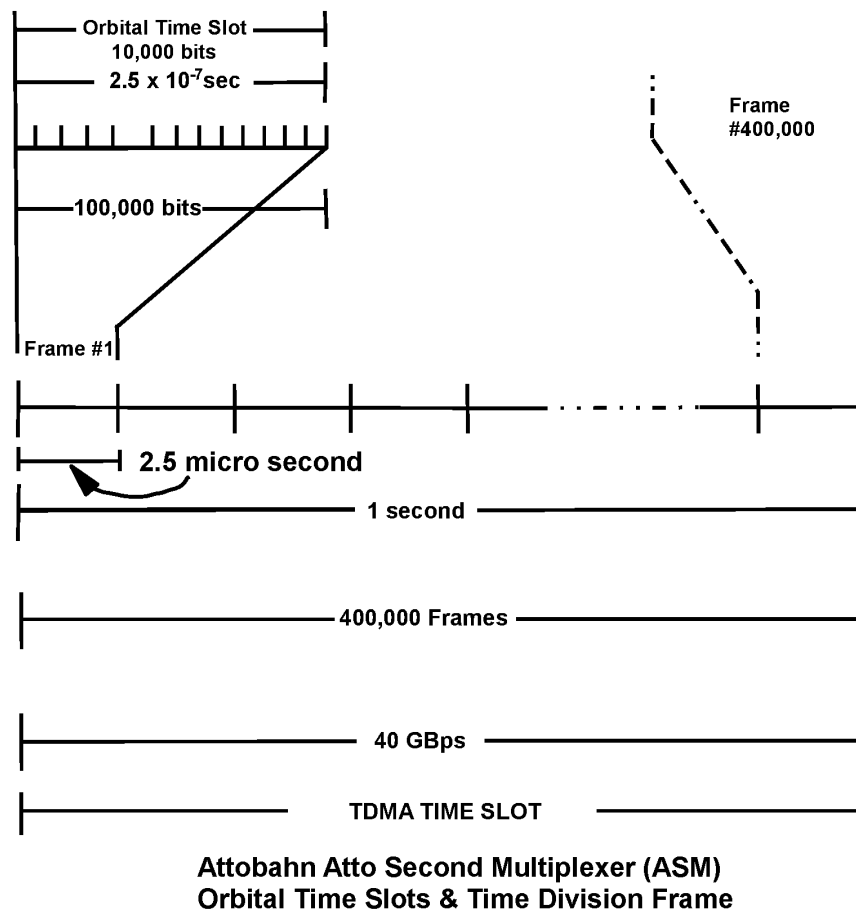


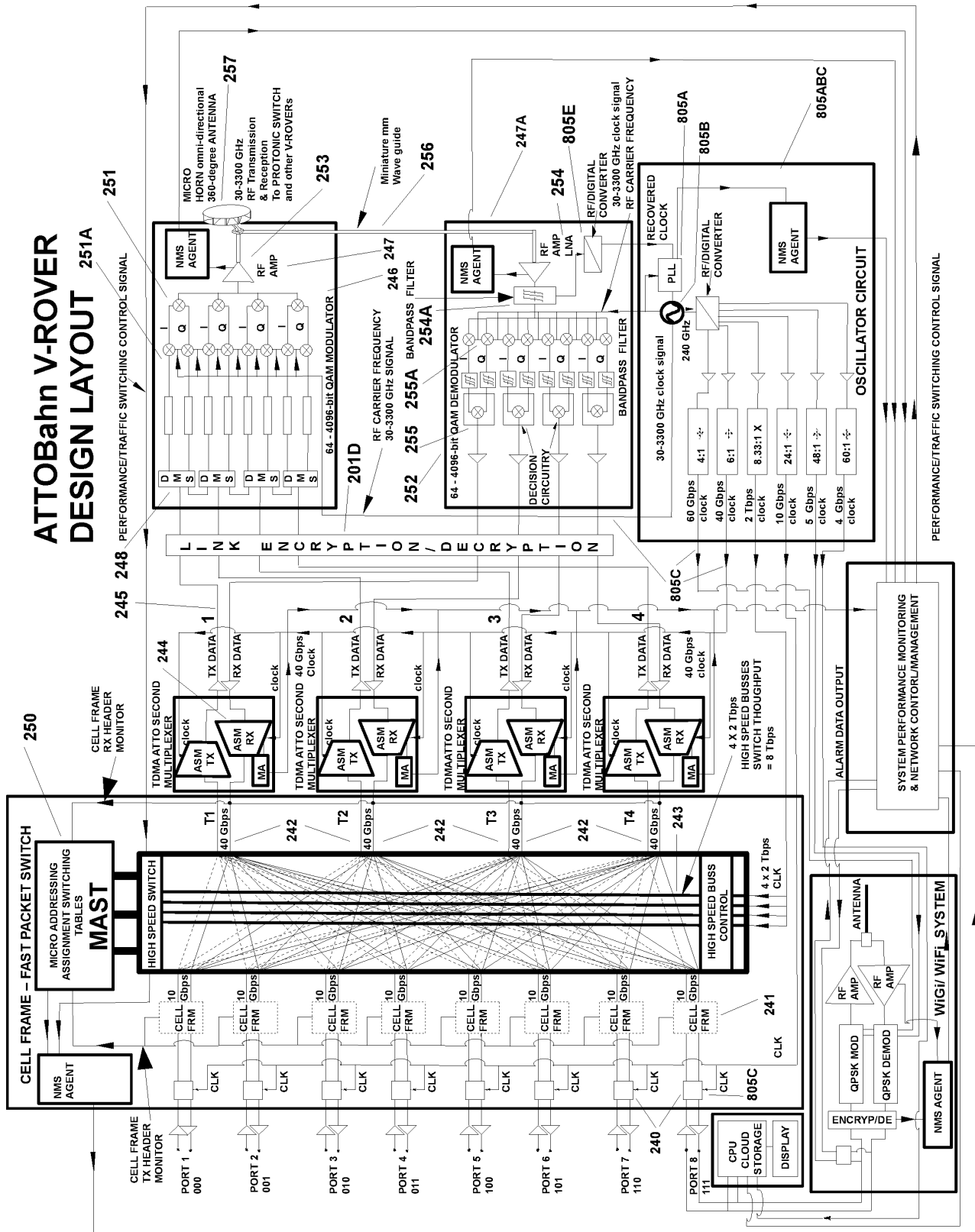
FIGURE 19



V-ROVER, Nano-ROVER, Atto-ROVER, PROTONIC SWITCH & NUCLEUS SWITCH

FIGURE 20

ATTOBahn V-ROVER DESIGN LAYOUT 251A

**FIGURE 21**

FRONT VIEW
7" FLEXIBLE
GLASS SCREEN

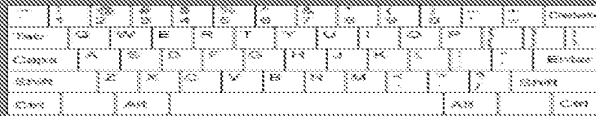
FRONT VIEW

360-degree
HORN
ANTENNA
30-3300 GHz

WiFi/WiGi
Antenna

Nano-ROVER ADDRESS
000-111-222-3334N/P1-4
SERIAL No. 000-111-222-3334

Login:
User Name:
PASSWORD:



P1 P2 P3 P4

280

901

1/3"

WIC CHIP
UPGRADE
CARD SLOT

5.5"

VARIUOS LIGHTS
INDICATORS ADS VIEW
LEVEL

REAR VIEW
7" CARBON FIBER
CASING

USB HDMI
10 GHz Ports

DC CHARGER
PORT

To V-ROVER, Nano-ROVER,
and PROTONIC SWITCH
NETWORK

360-degree
HORN
ANTENNA
30-3300 GHz

WiFi/WiGi
Antenna

P1 P2 P3 P4

REAR VIEW

Nano-ROVER

Device PHYSICAL LAYOUT

FIGURE 22

FRONT VIEW
7" FLEXIBLE
GLASS SCREEN

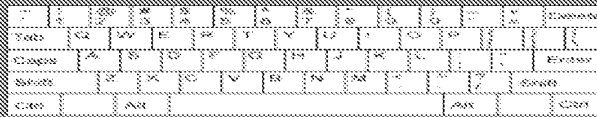
FRONT VIEW

360-degree
HORN
ANTENNA
30-3300 GHz

WiFi/WiGi
Antenna

Nano-ROVER ADDRESS
000-111-222-3334N/P1-4
SERIAL No. 000-111-222-3334

Login:
User Name:
PASSWORD:



DC CHARGER
PORT

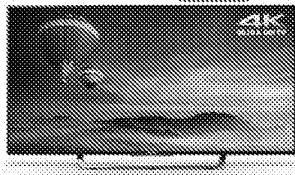
P1

P2

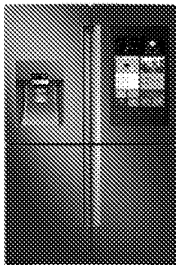
P3

P4

WiFi



WiFi



WiFi

PERSONAL
INFOTAINMENT



WiGi



WiFi



Nx40 GHz

Nano-ROVER mmW Device PHYSICAL CONNECTION

FIGURE 23

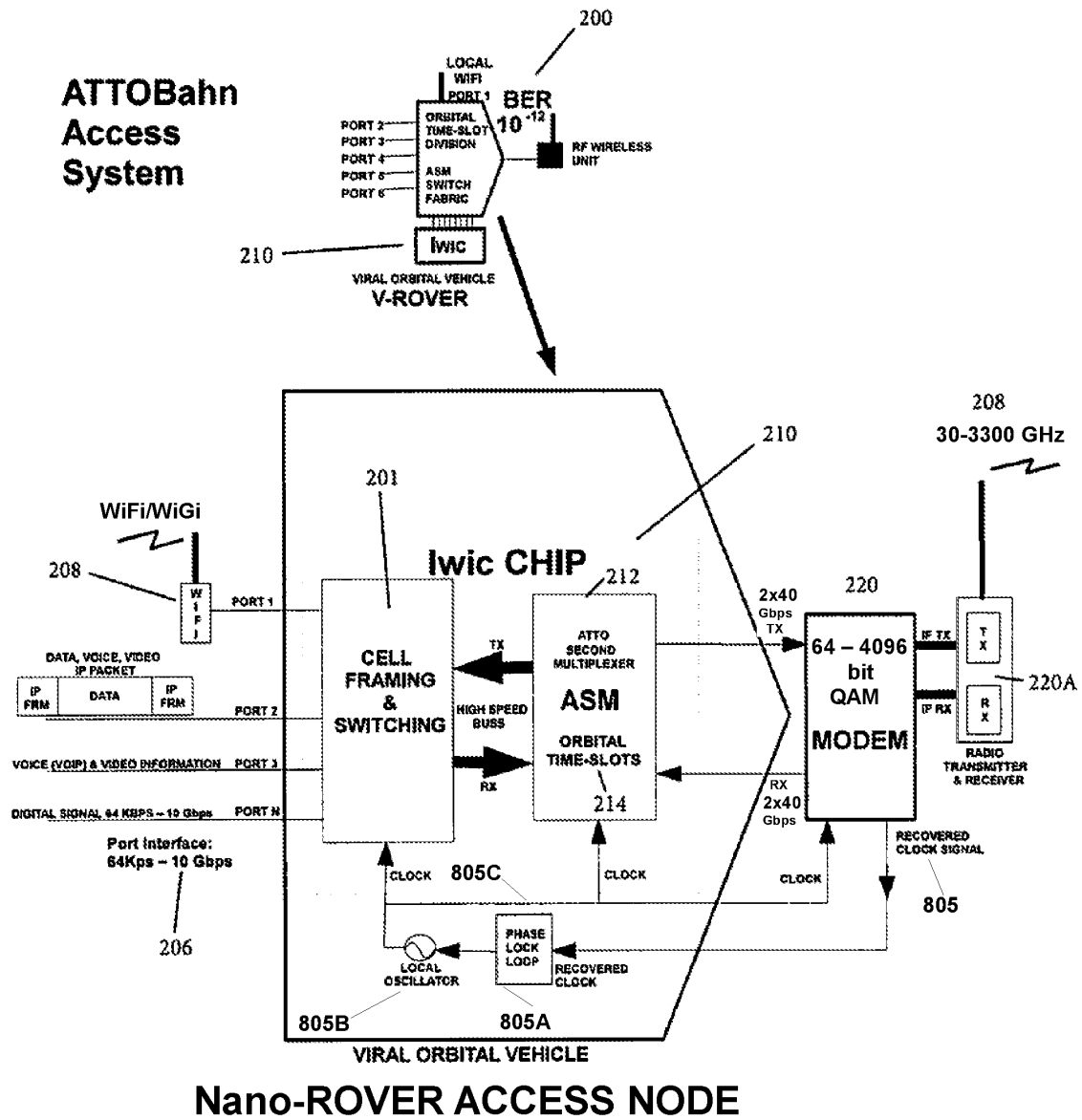
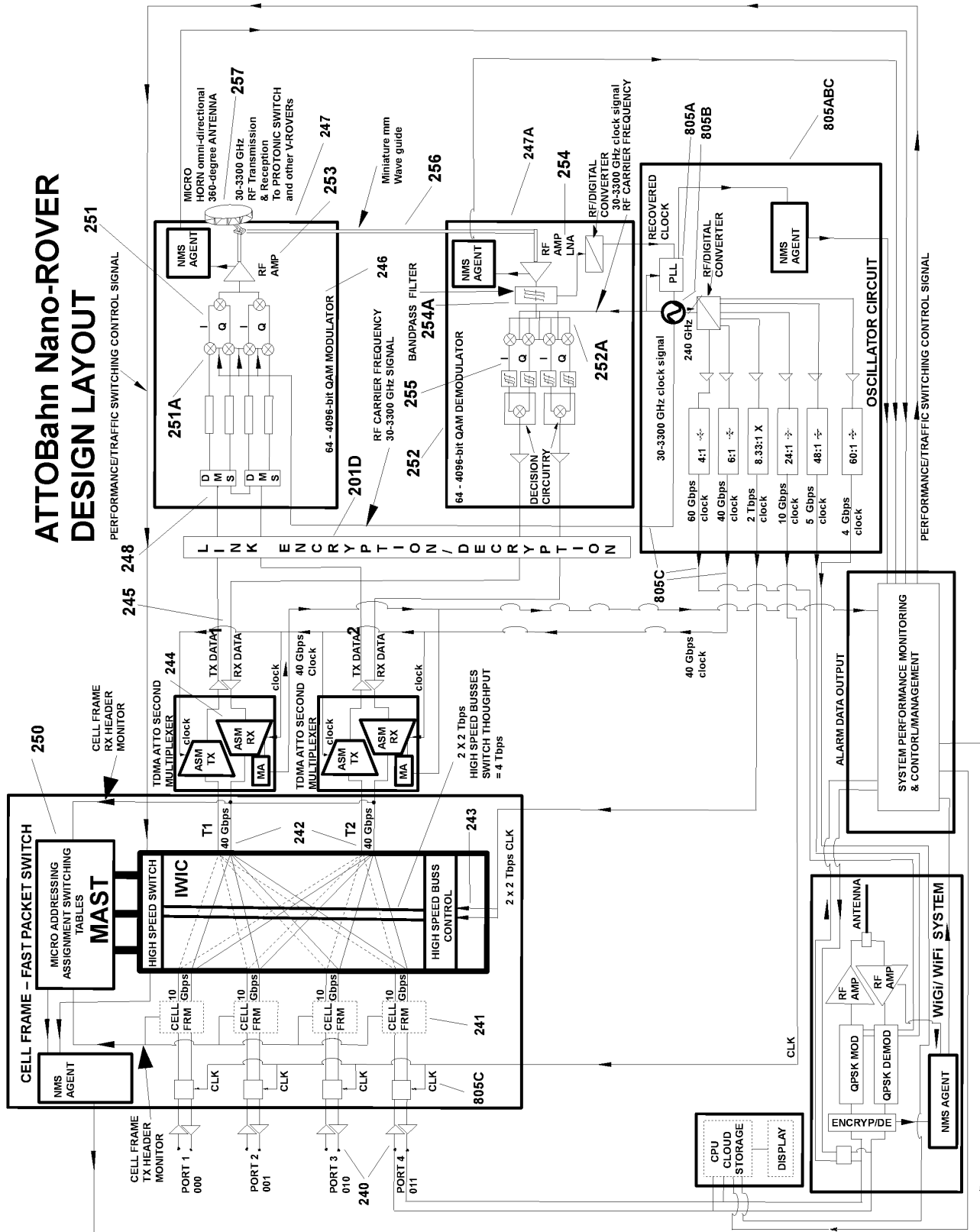
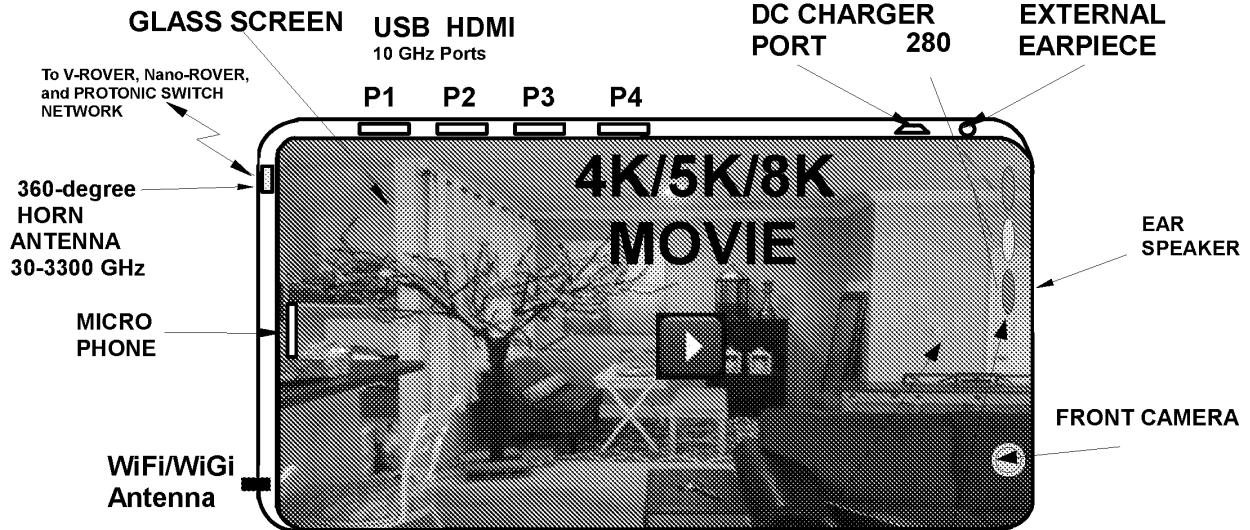


FIGURE 24



FRONT VIEW
7" FLEXIBLE
GLASS SCREEN

FIGURE 26



FRONT VIEW

4K/5K/8K
BROADCAST
TELEVISION

VARIUOS LIGHTS
INDICATORS ADS VIEW
LEVEL

REAR VIEW
7" FLEXIBLE
GLASS SCREEN

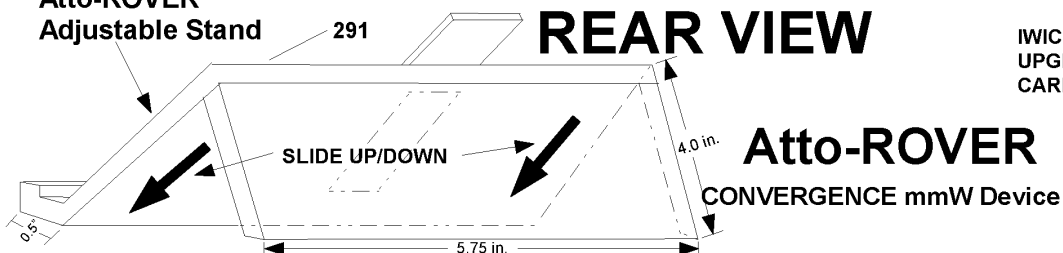
PROJECTOR
LAMP FOR EXTERNAL
SCREEN PROJECTION

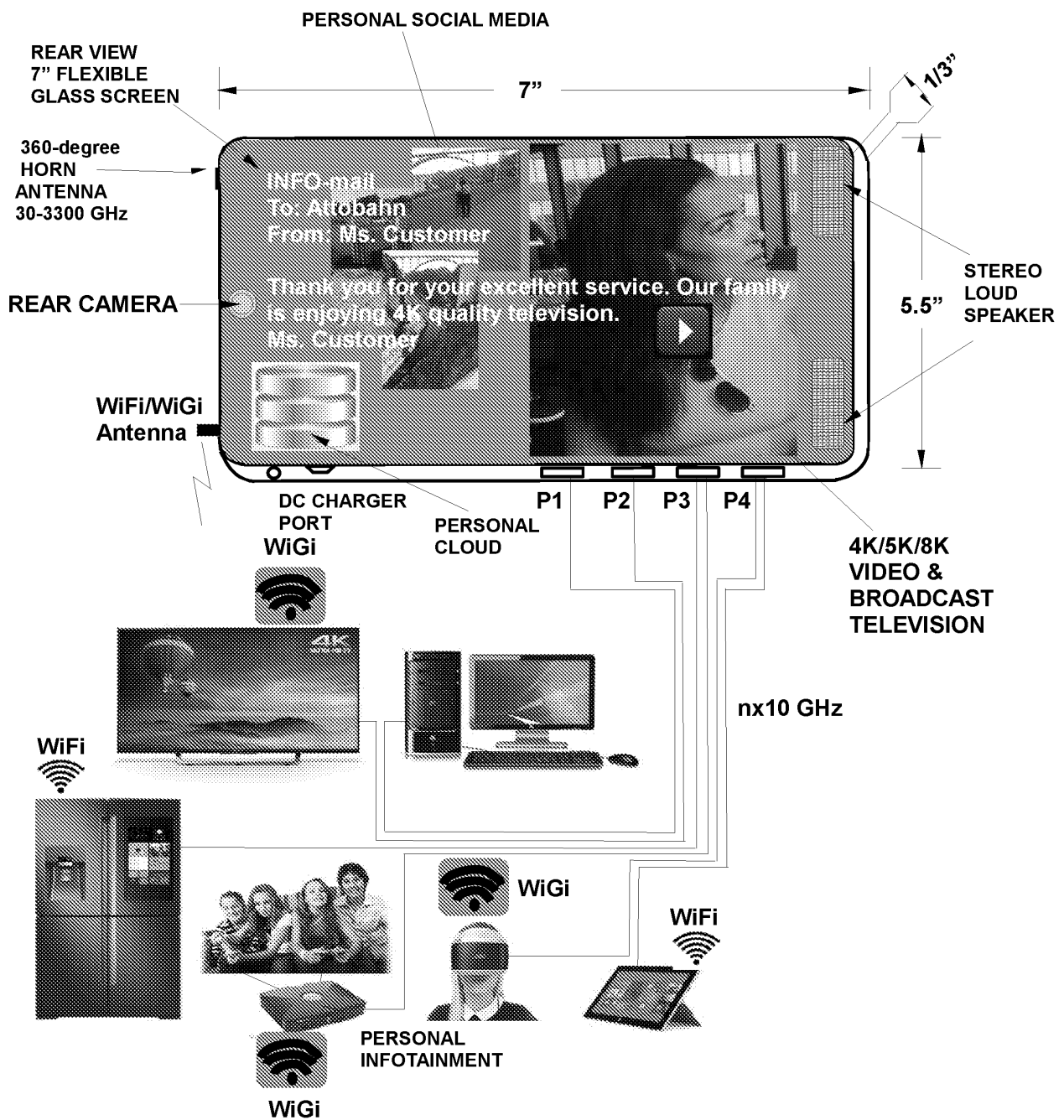


Atto-ROVER
Adjustable Stand

REAR VIEW

WIC CHIP
UPGRADE
CARD SLOT





Atto-ROVER CONVERGENCE SERVICES

FIGURE 27

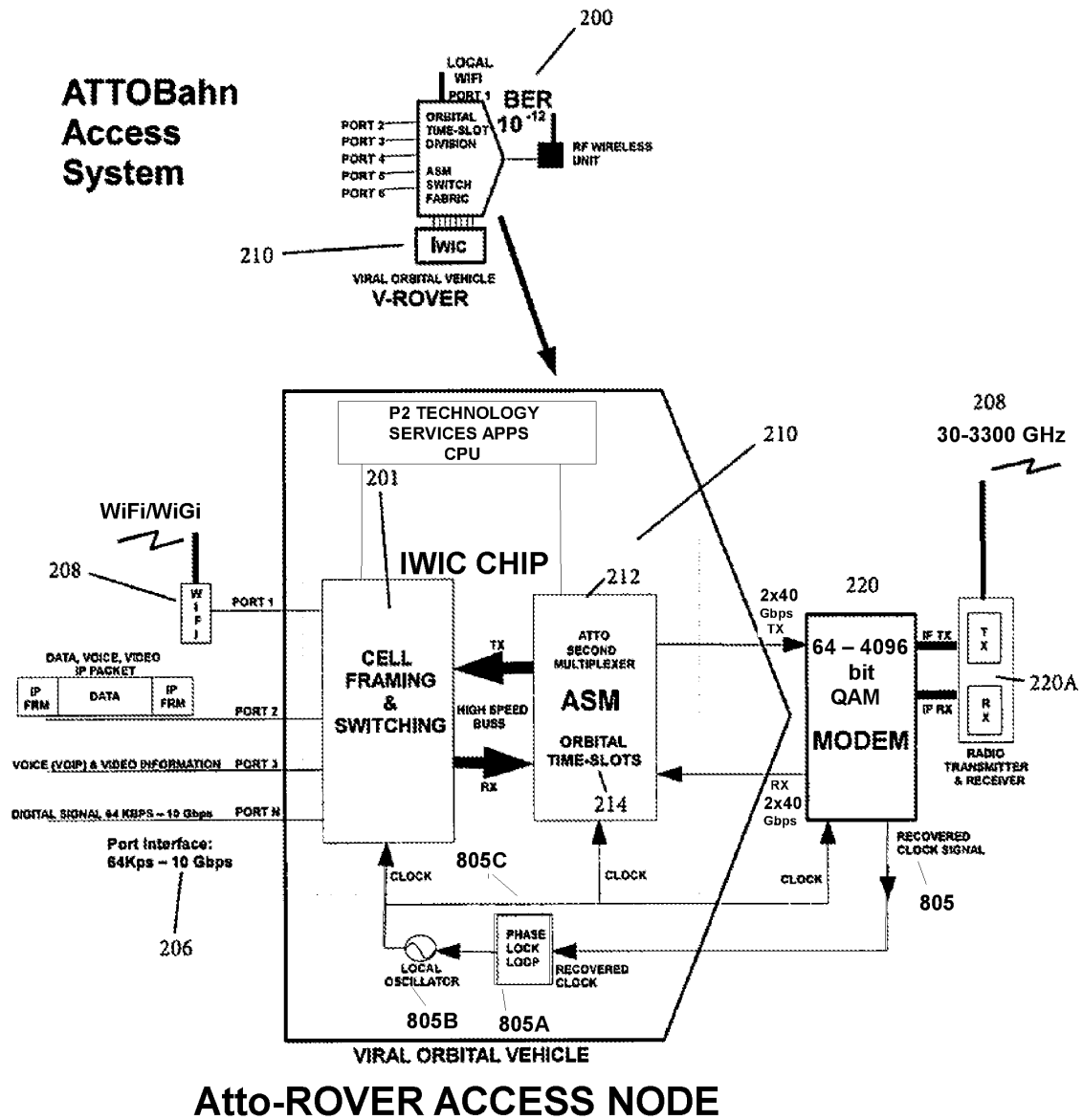


FIGURE 28

ATTOBahn Atto-ROVER DESIGN LAYOUT

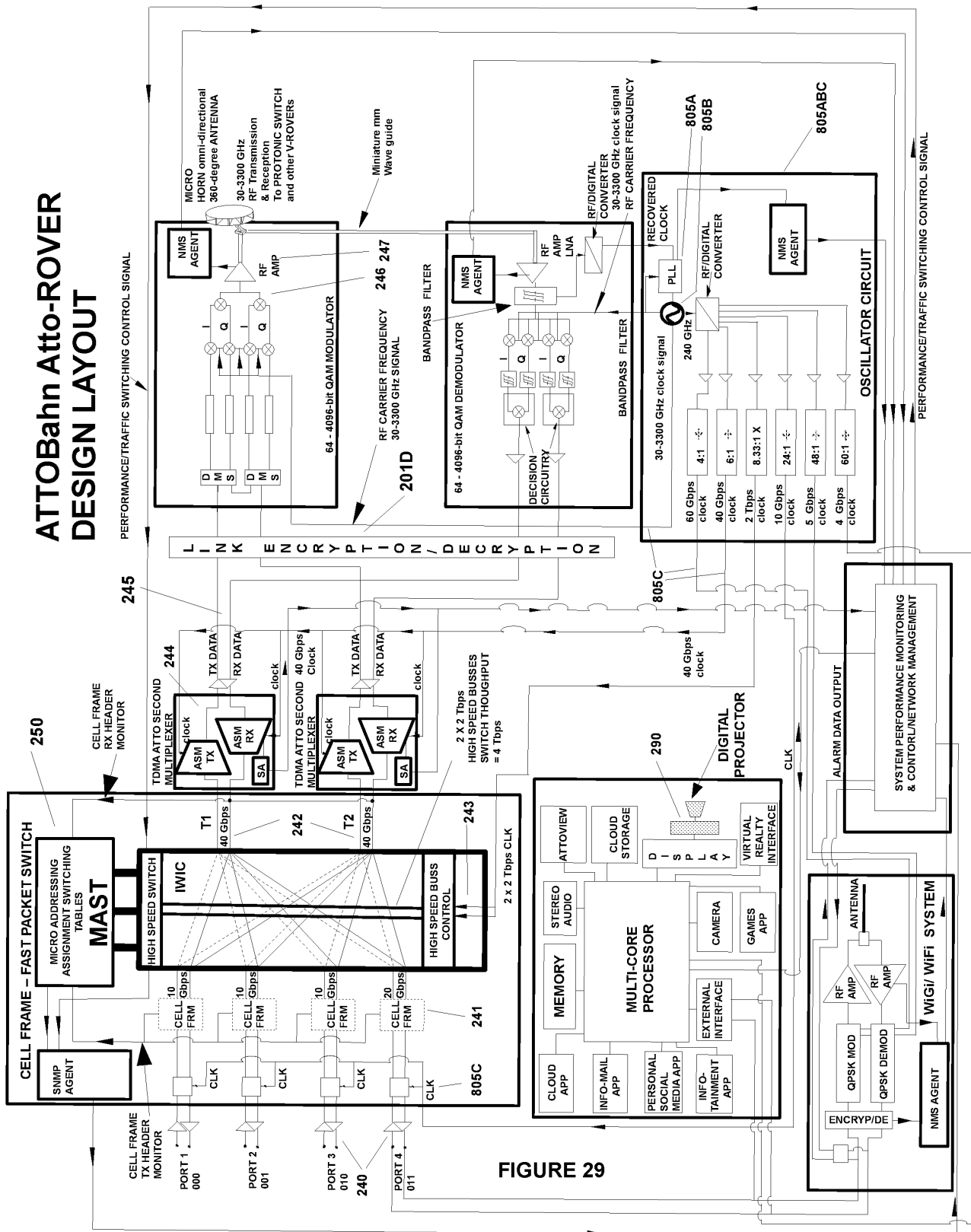


FIGURE 29

ATTOBAHN AERIAL DRONE PROTONIC SWITCH

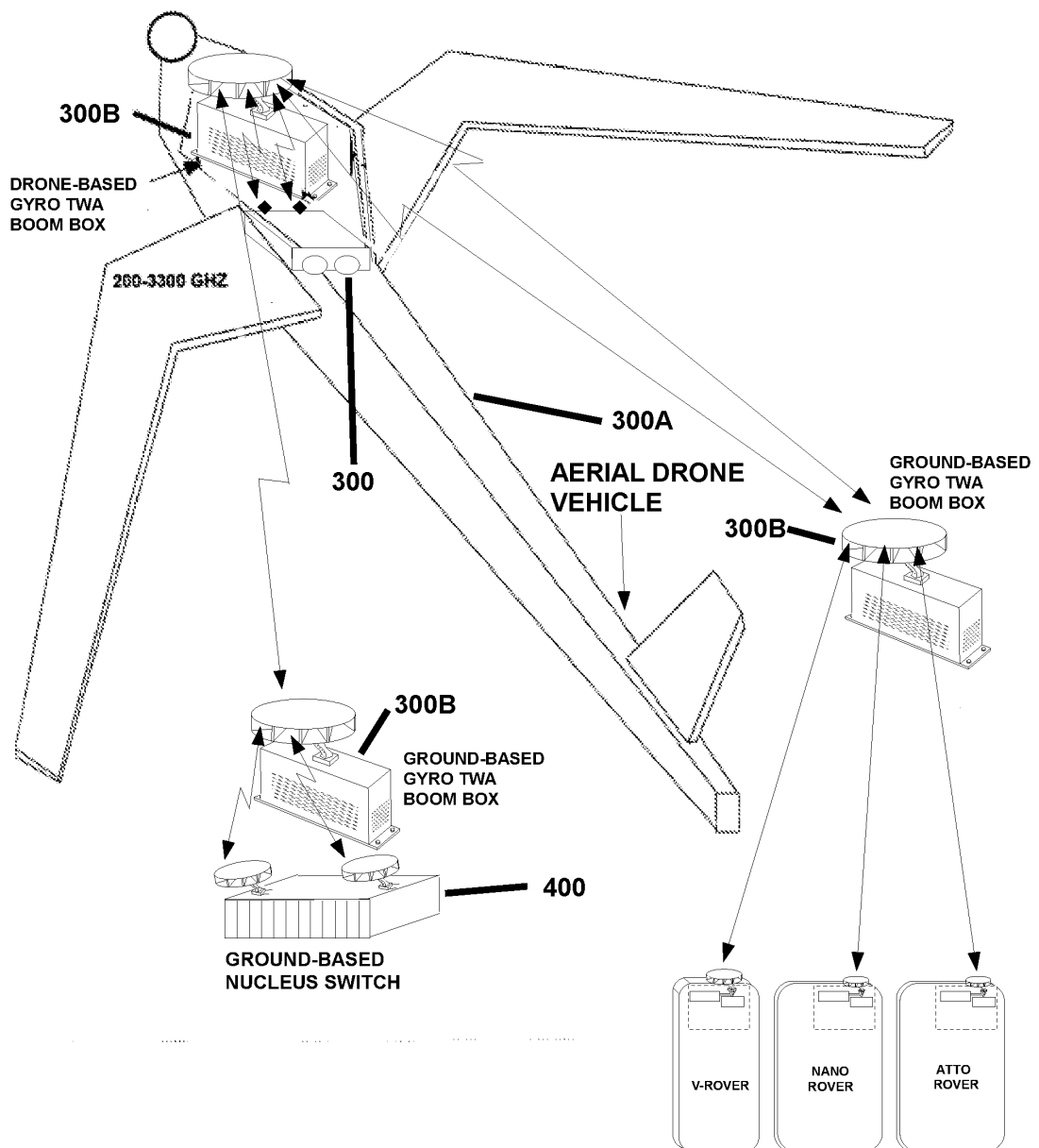
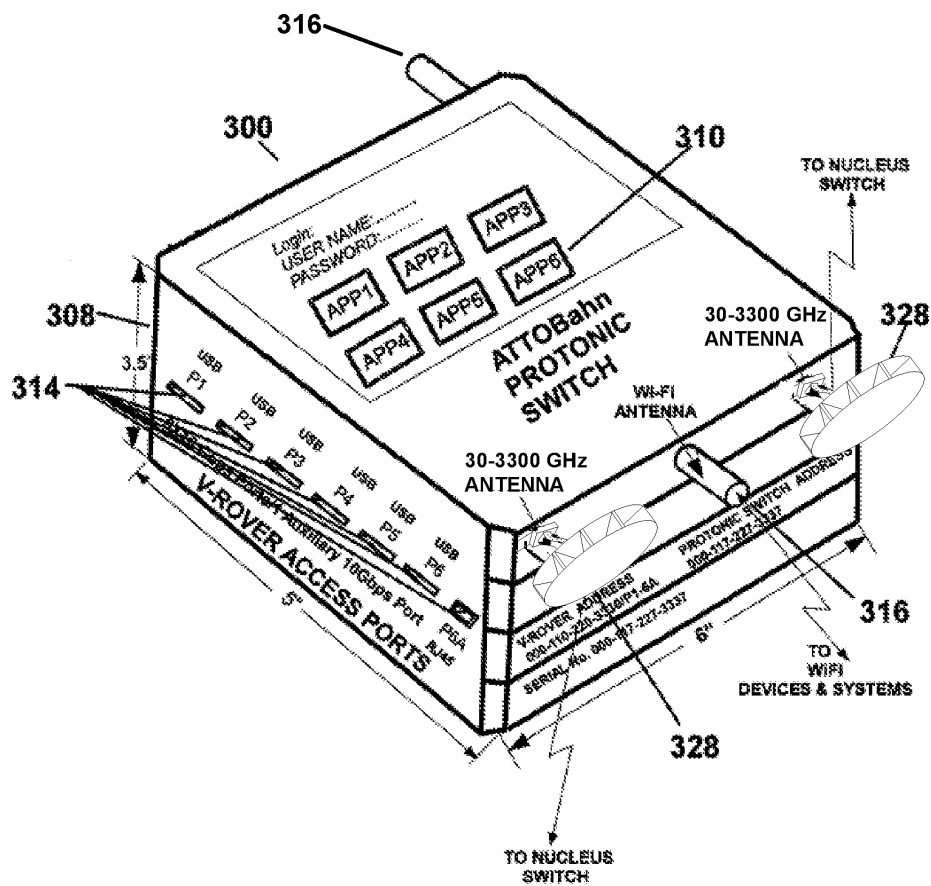
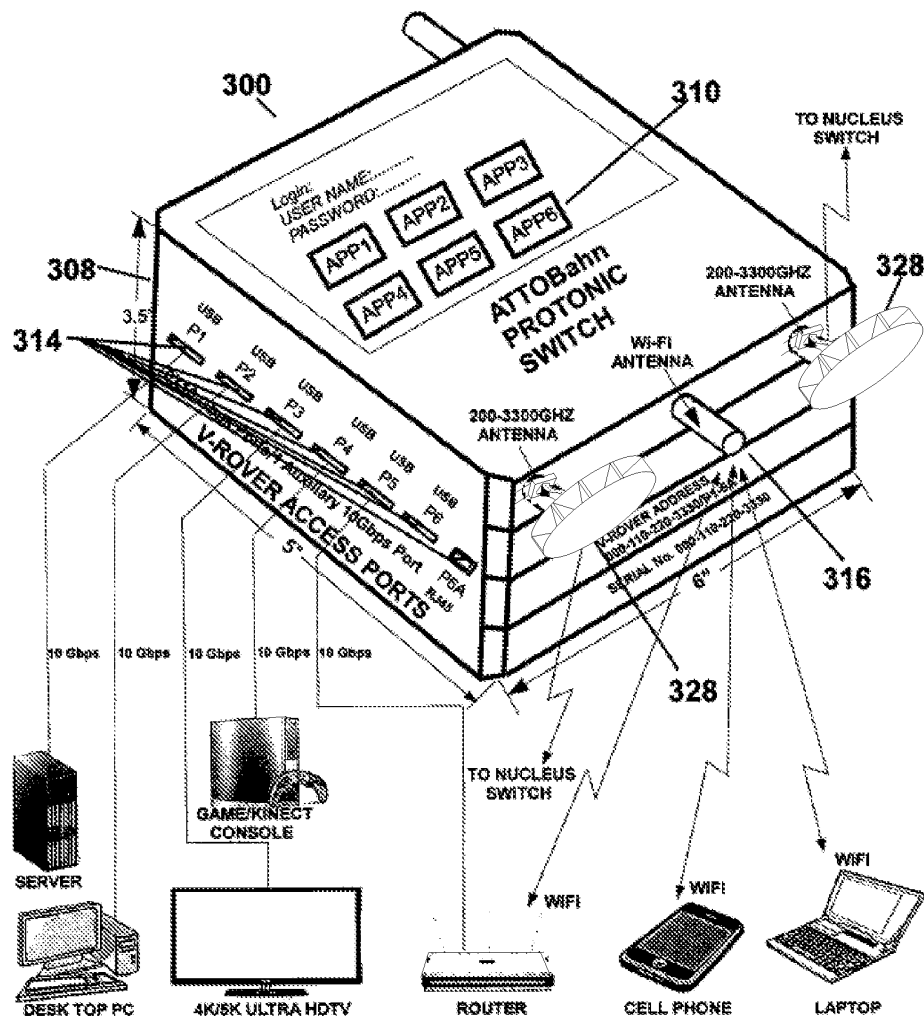


FIGURE 30



PROTONIC SWITCH PHYSICAL LAYOUT

FIGURE 31



**PROTONIC SWITCH
PHYSICAL CONNECTIVITY**

Figure 7A

FIGURE 32

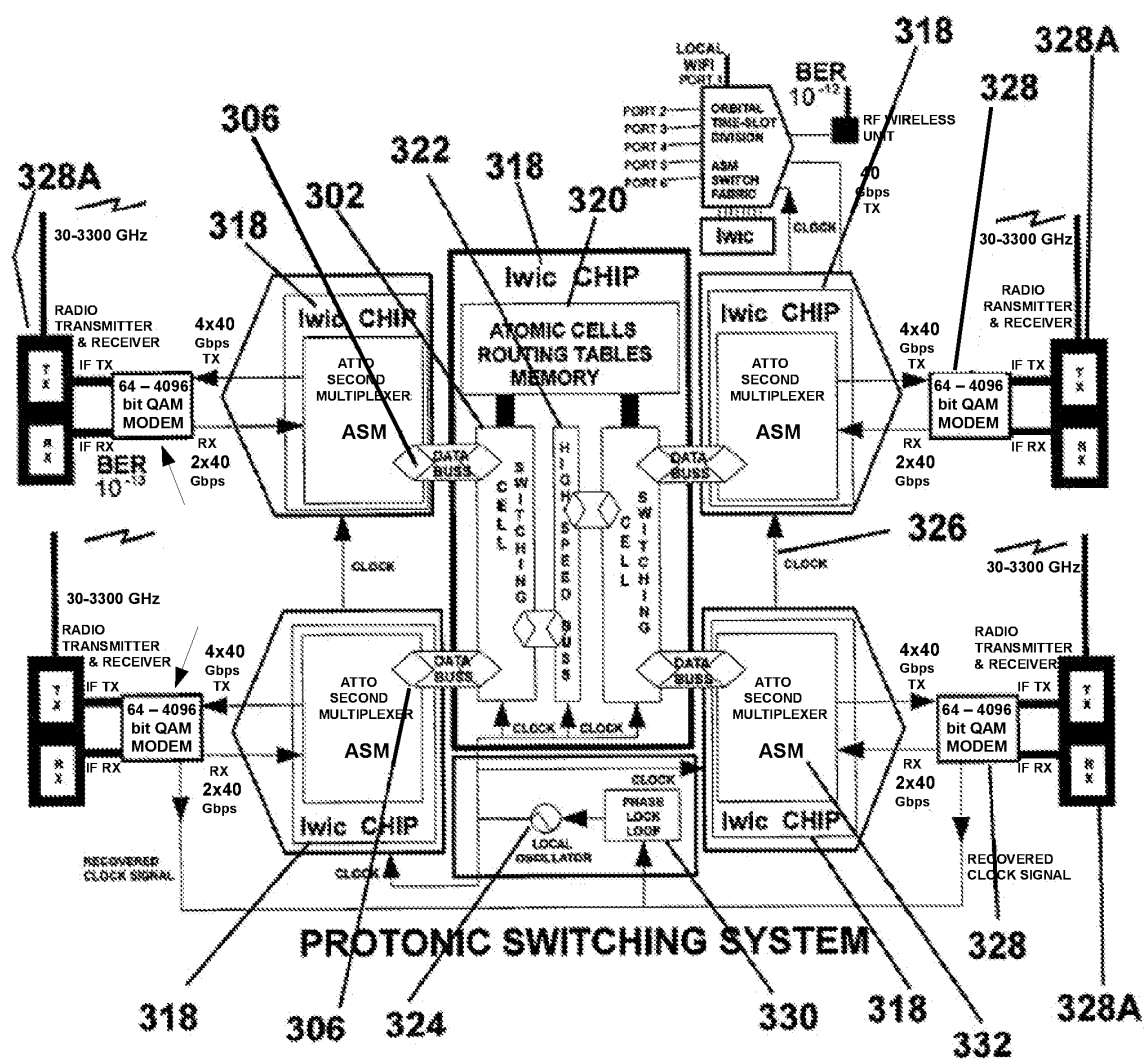


FIGURE 33

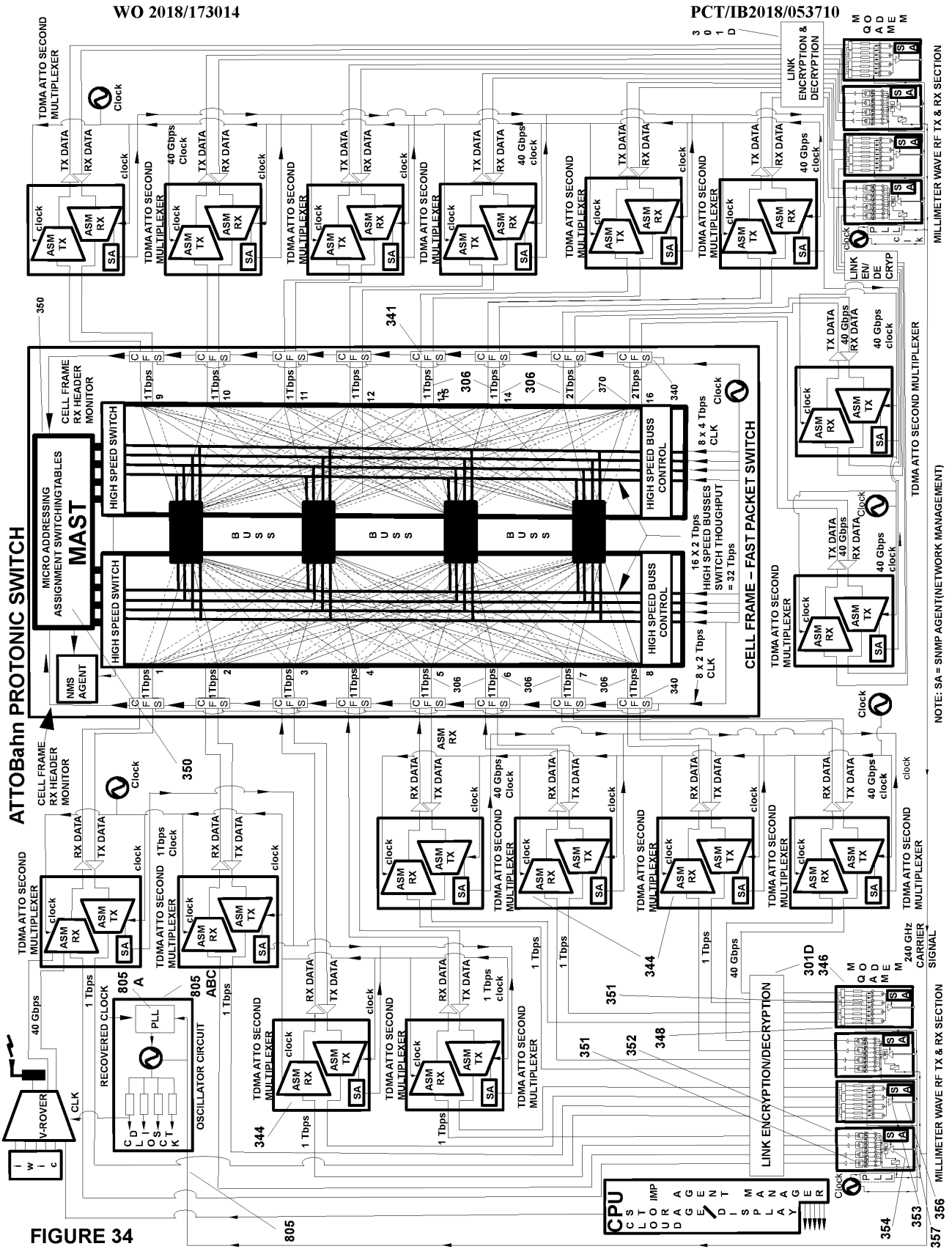


FIGURE 34

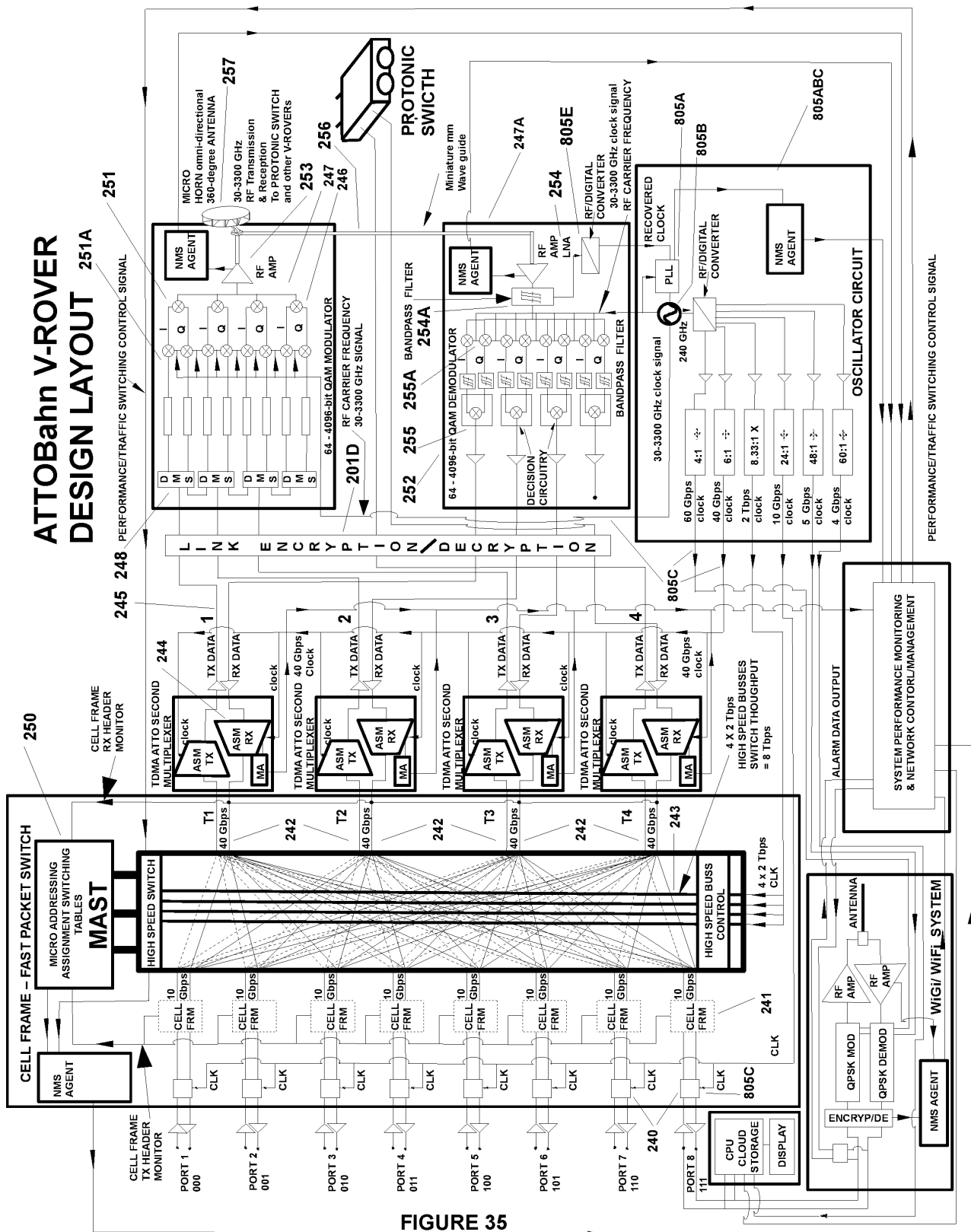


FIGURE 35

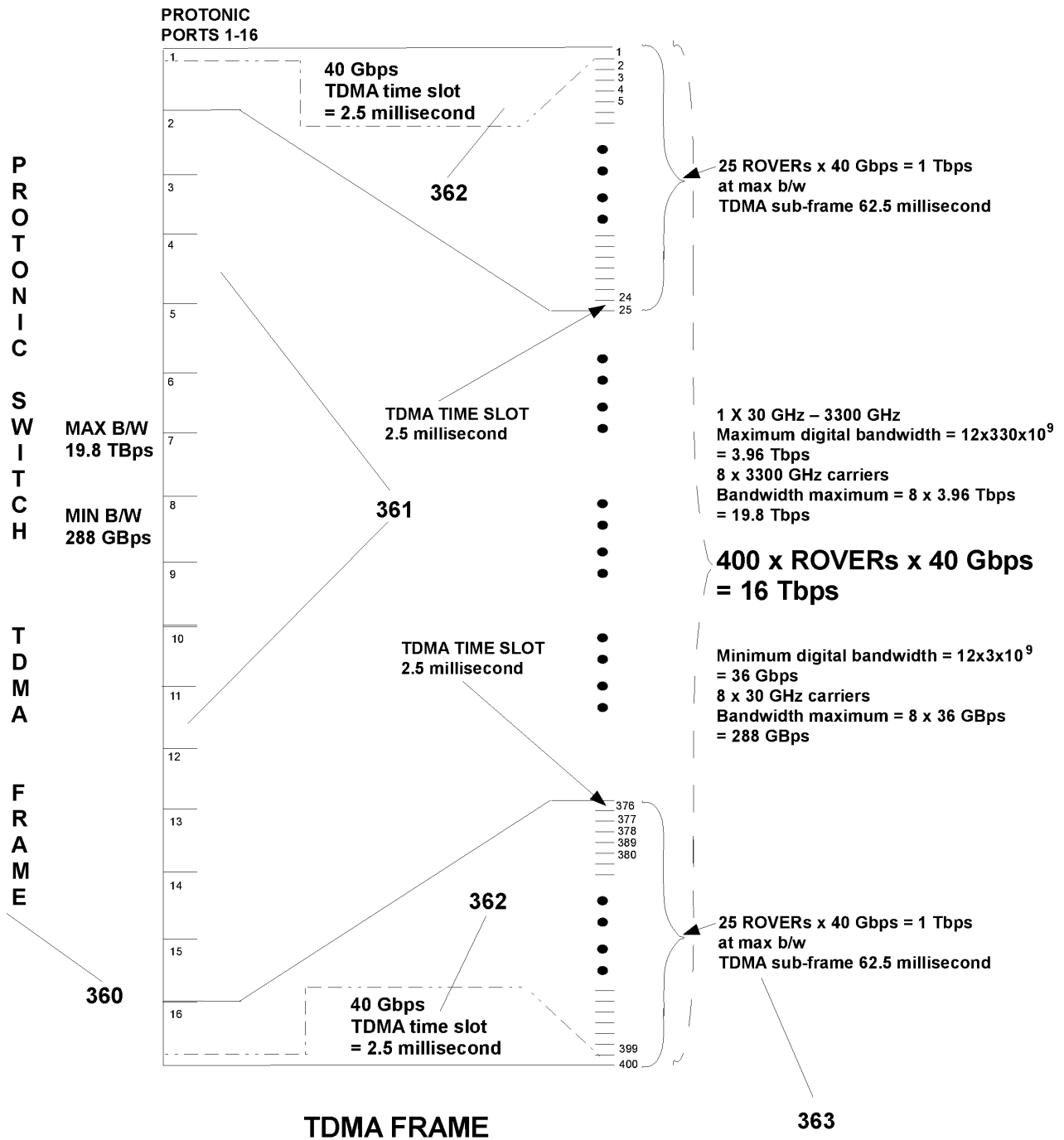


FIGURE 36

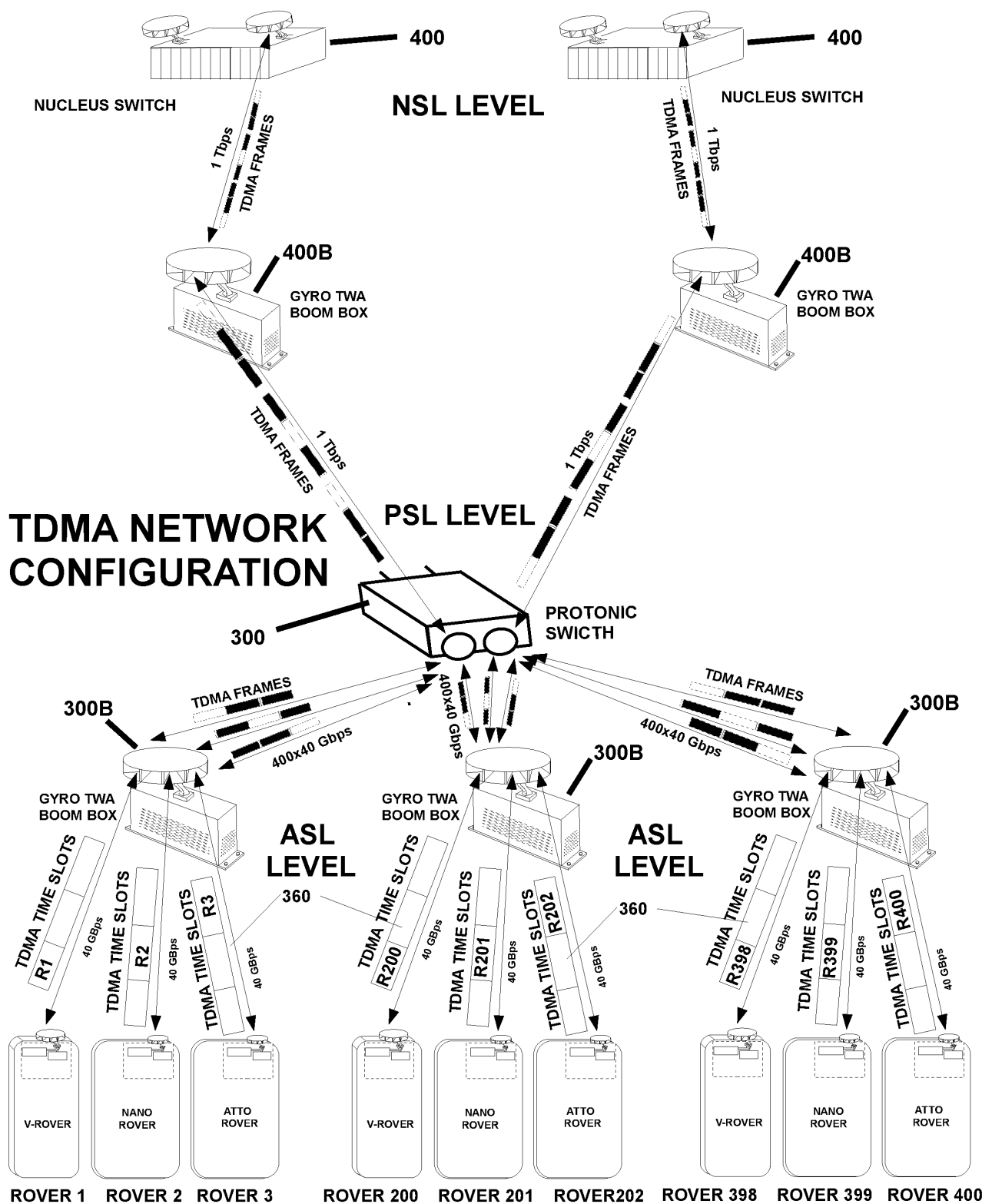


FIGURE 37

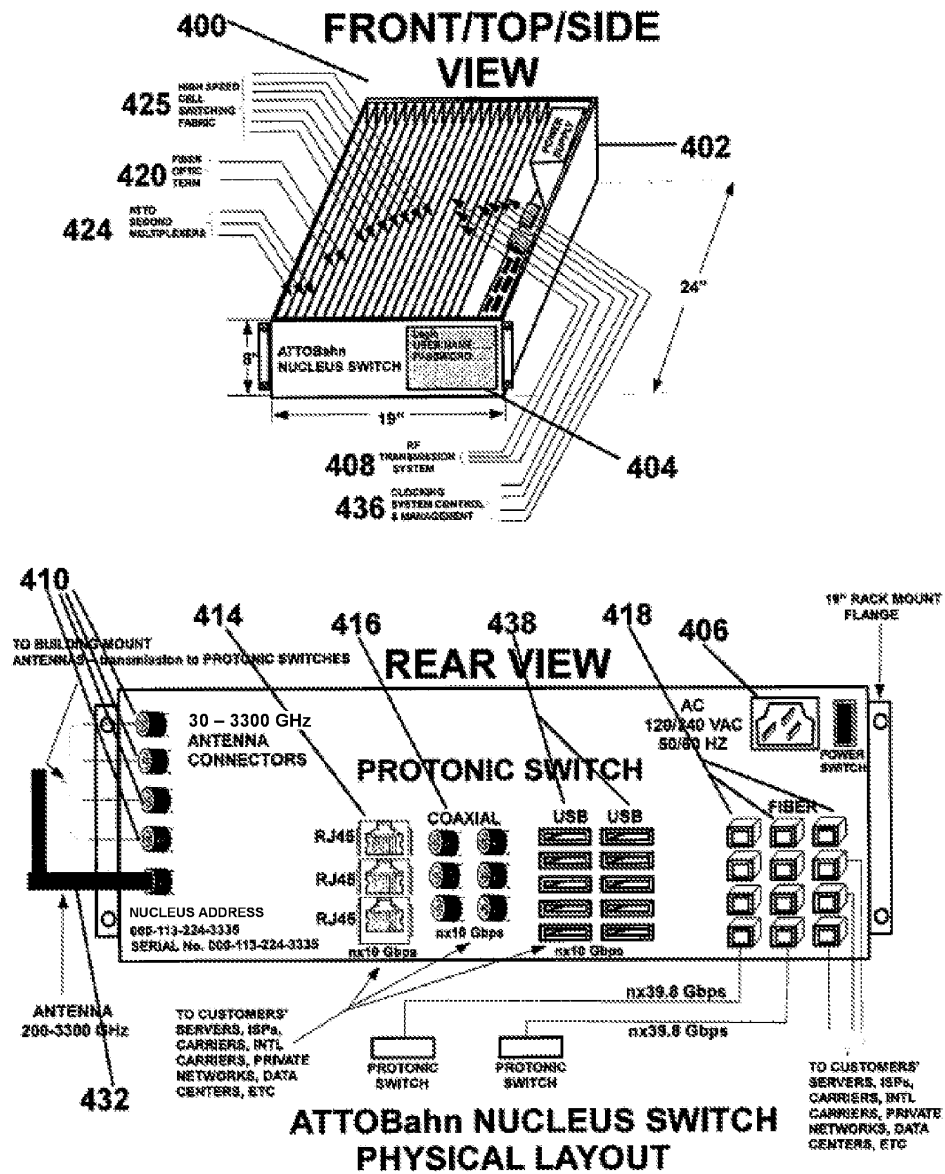
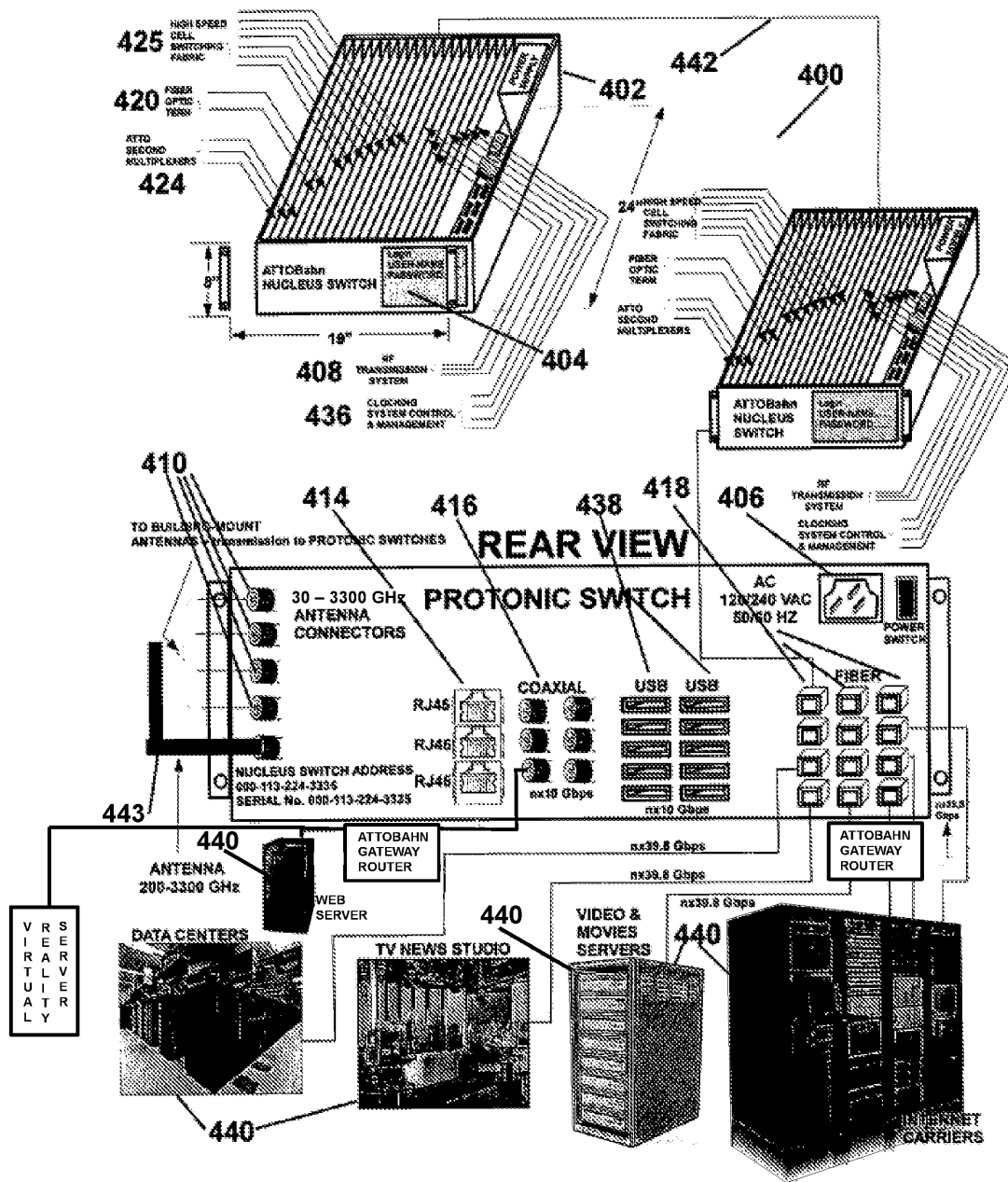


FIGURE 38



ATTOBAHN NUCLEUS SWITCH CONNECTIONS TO PROVIDERS AND CORPORATE NETWORKS

FIGURE 39



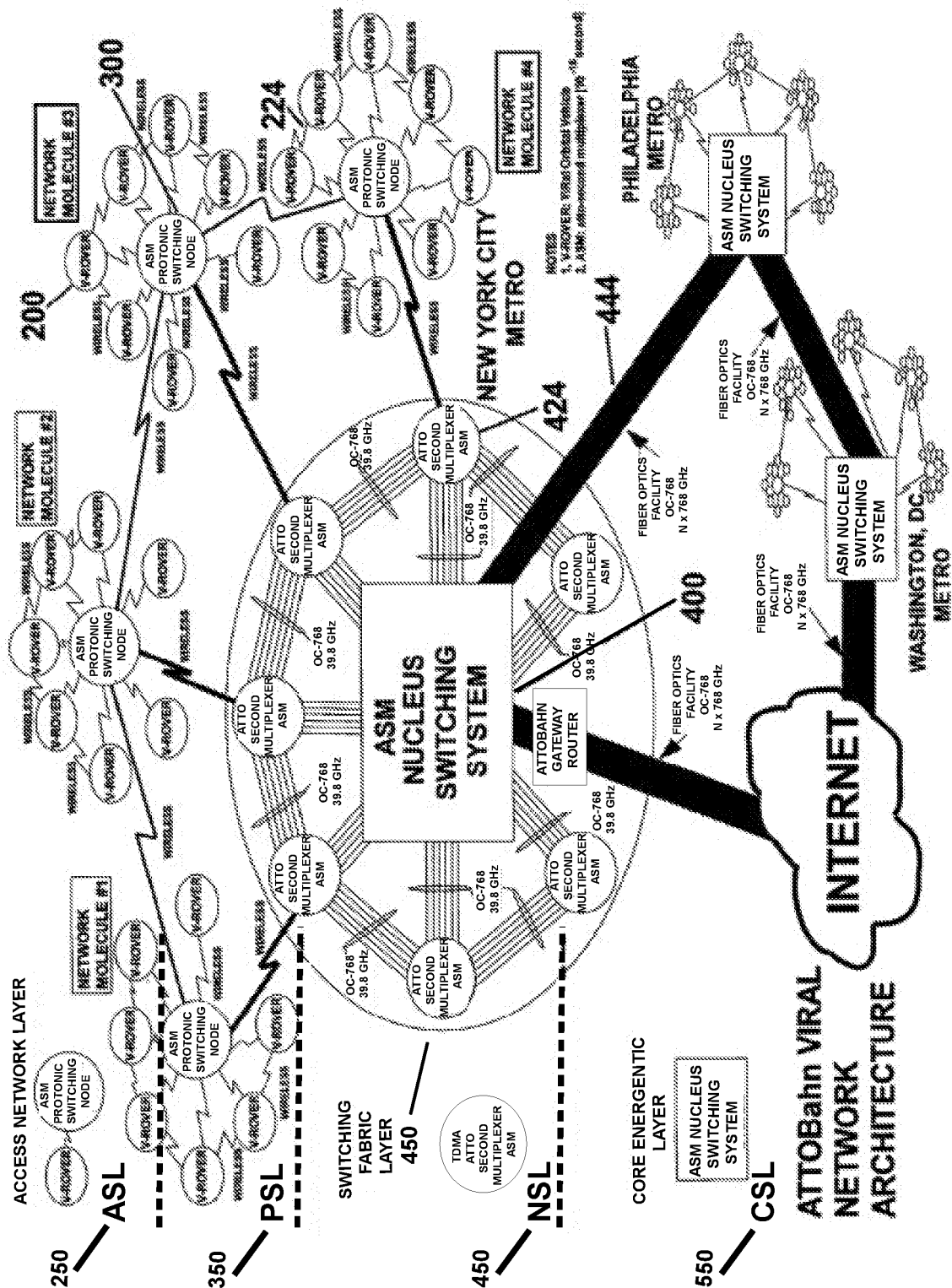
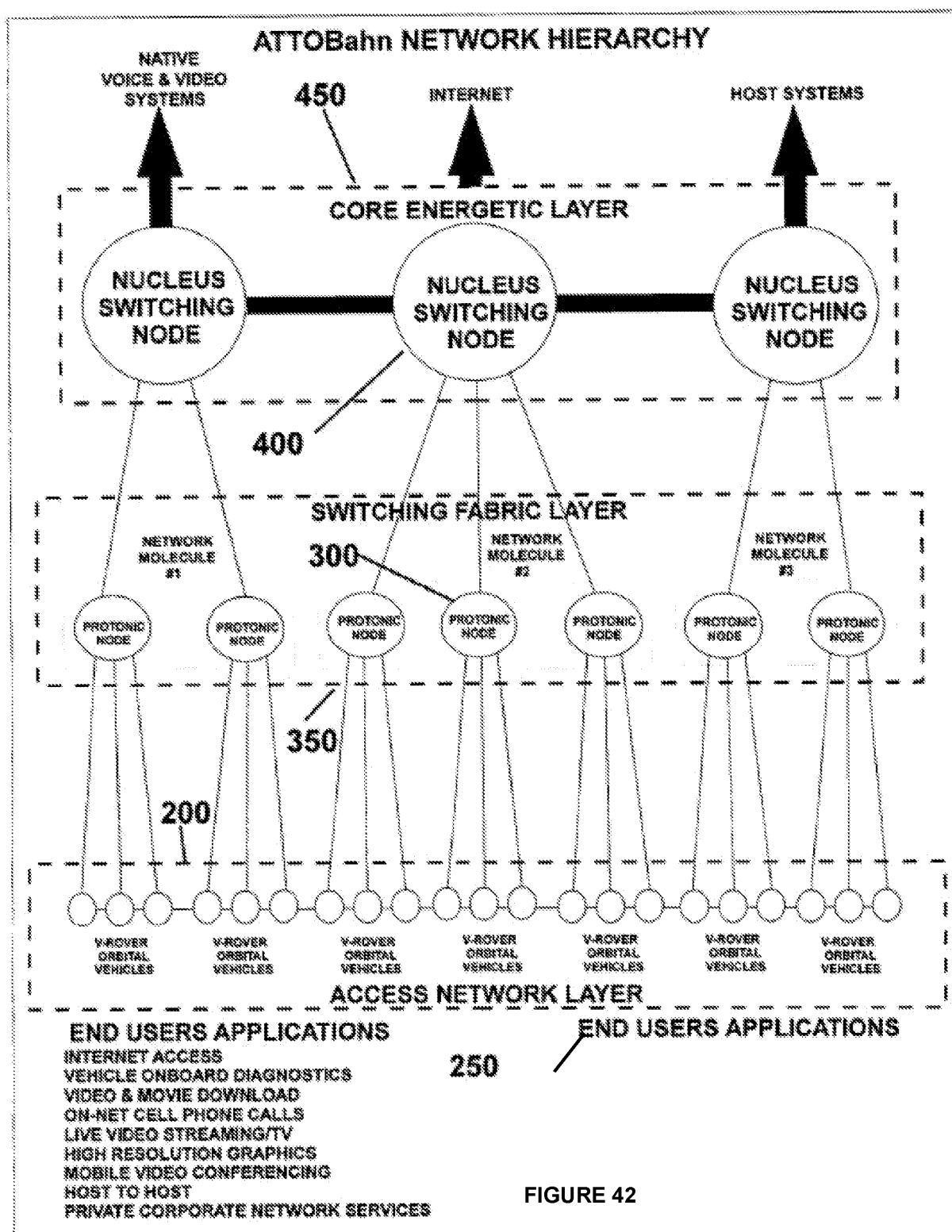
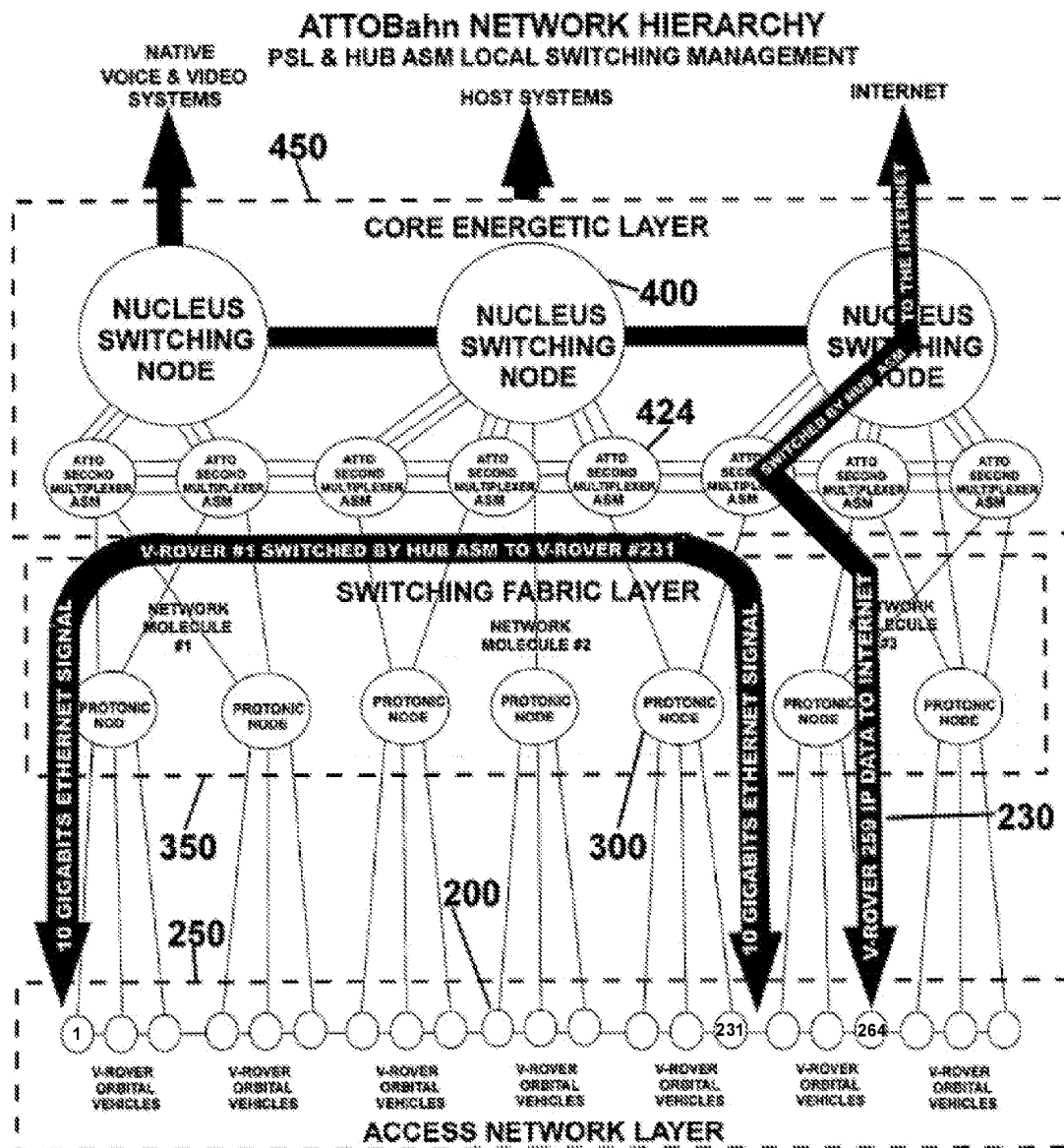


FIGURE 41

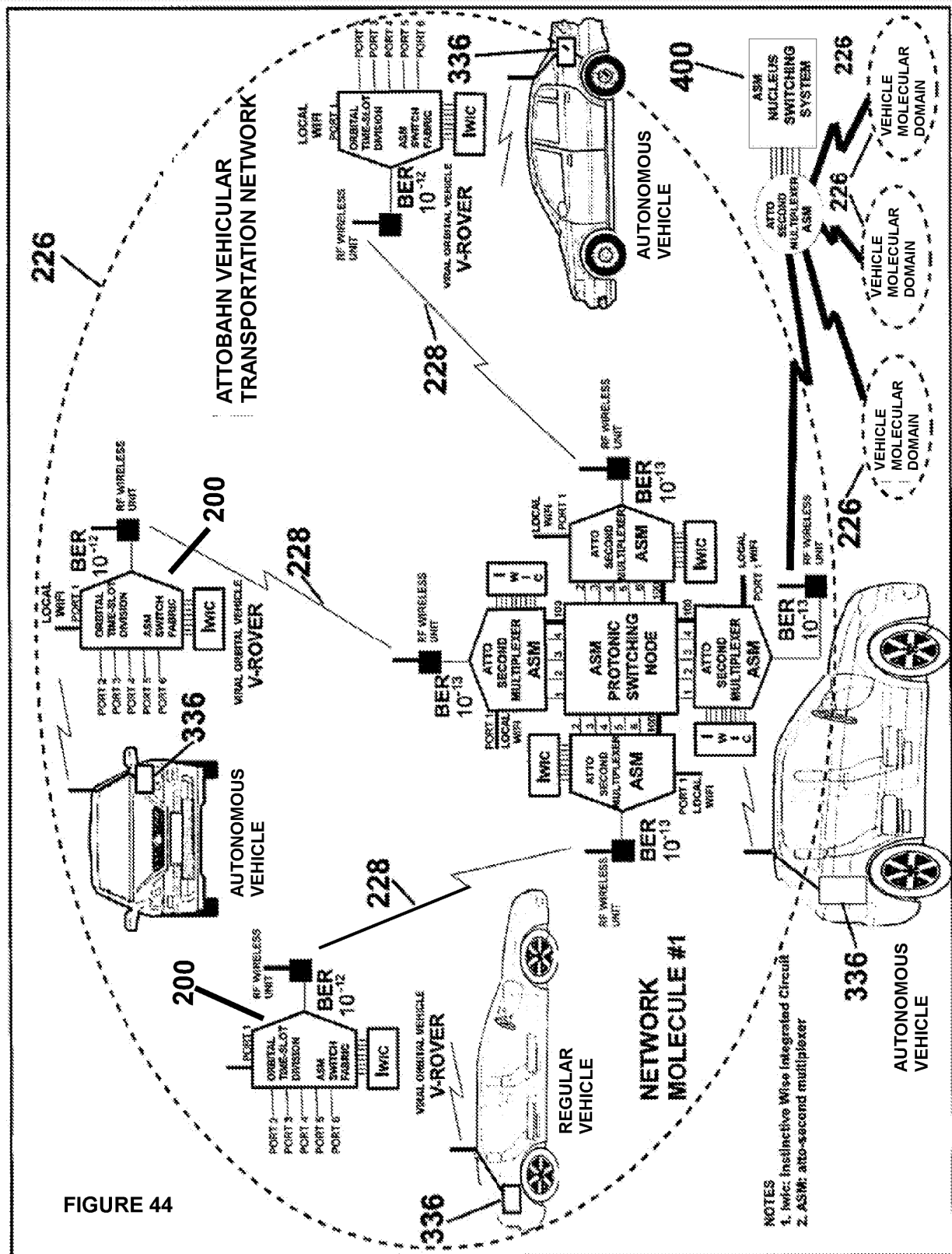




END USERS APPLICATIONS 10-20 Gbps connections to each user

INTERNET ACCESS
 VEHICLE ONBOARD DIAGNOSTICS
 AUTONOMOUS VEHICLE COMMUNICATIONS NETWORK
 VIDEO & MOVIS DOWNLOAD
 ON-NET CELL PHONE CALLS
 LIVE VIDEO & TV NEWS BROADCAST
 HIGH RESOLUTION GRAPHICS
 MOBILE VIDEO CONFERENCING
 HOS-TO-HOST HIGH SPEED DATA
 PRIVATE CORPORATE NETWORK SERVICES

FIGURE 43



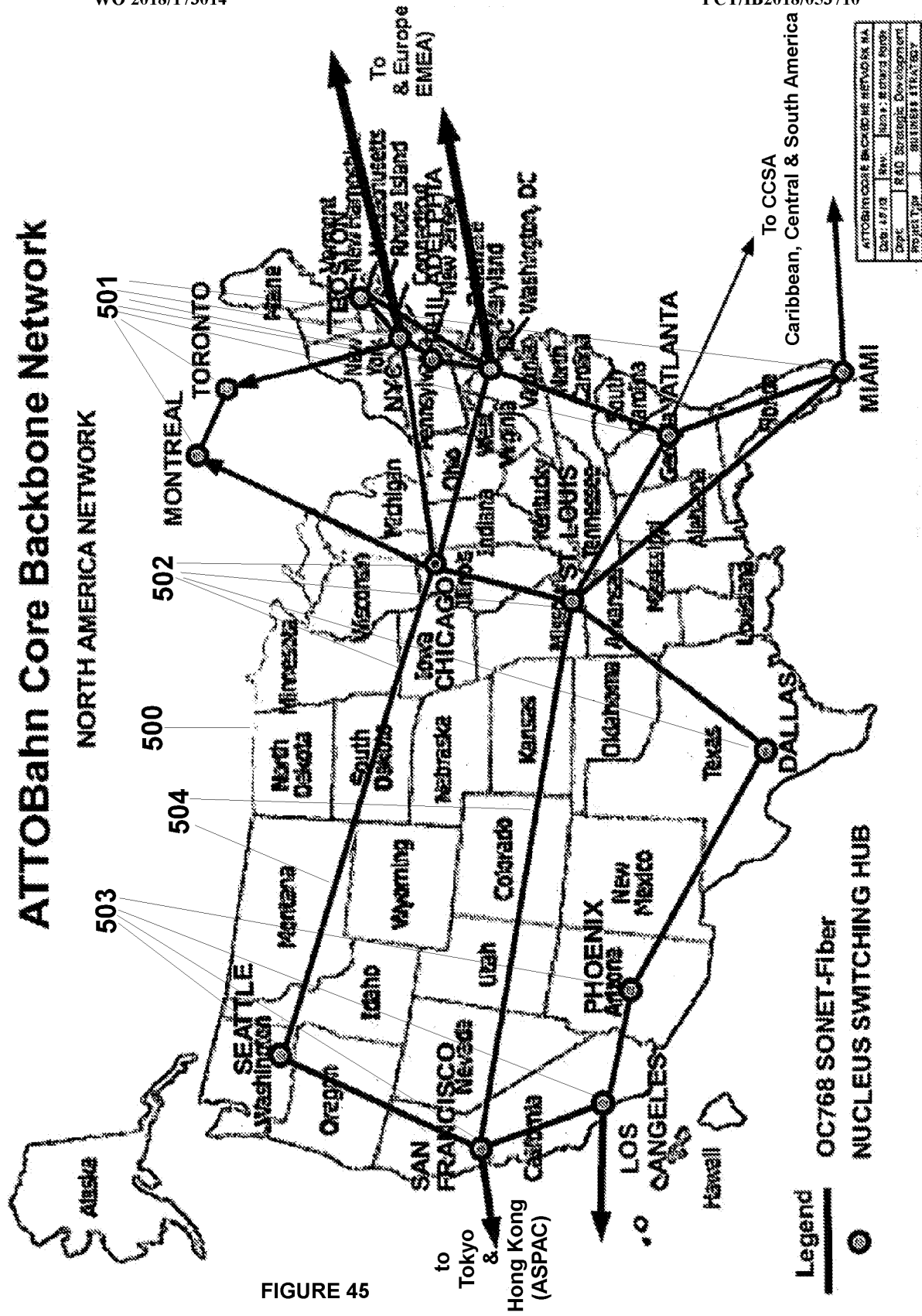


FIGURE 45

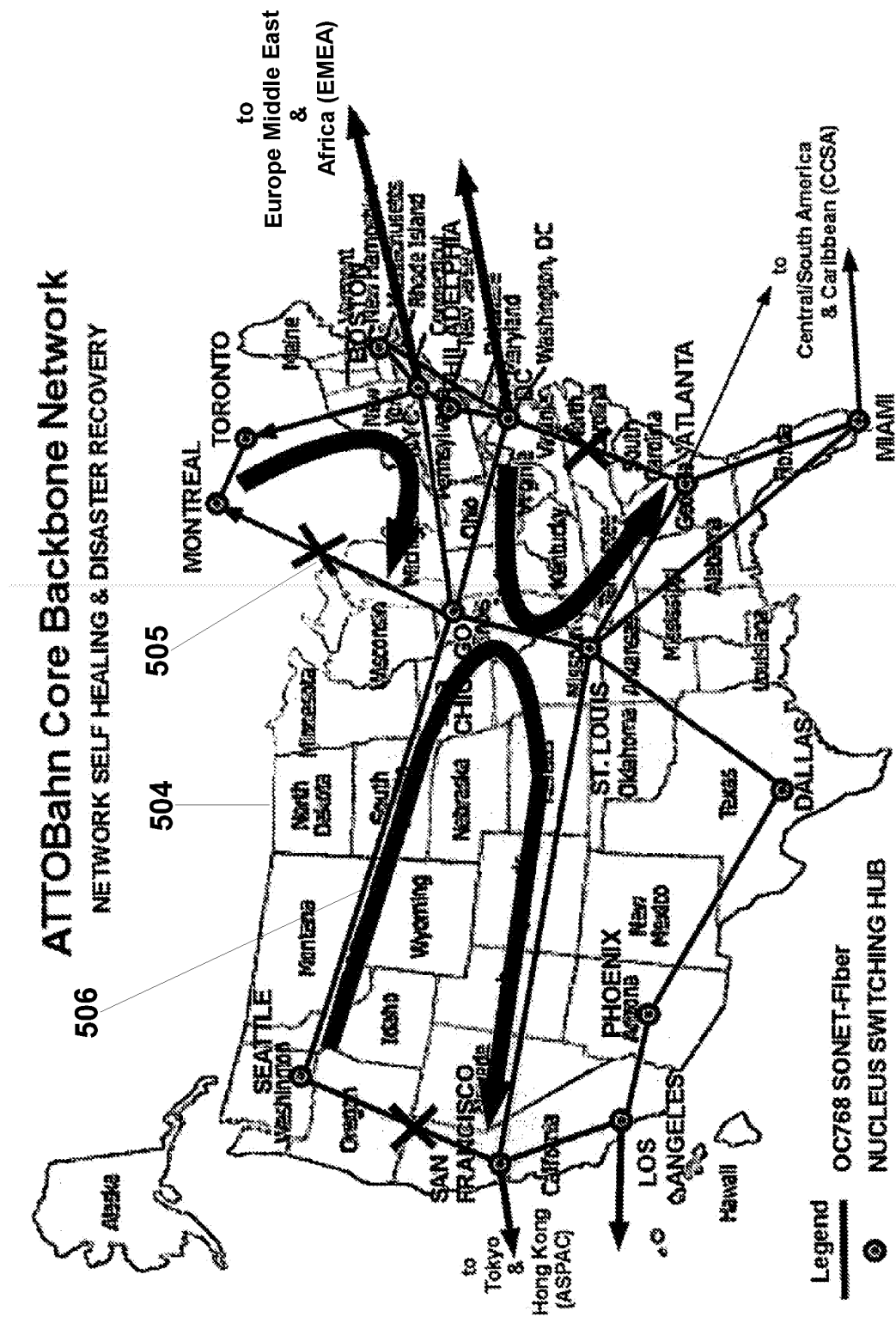


FIGURE 46

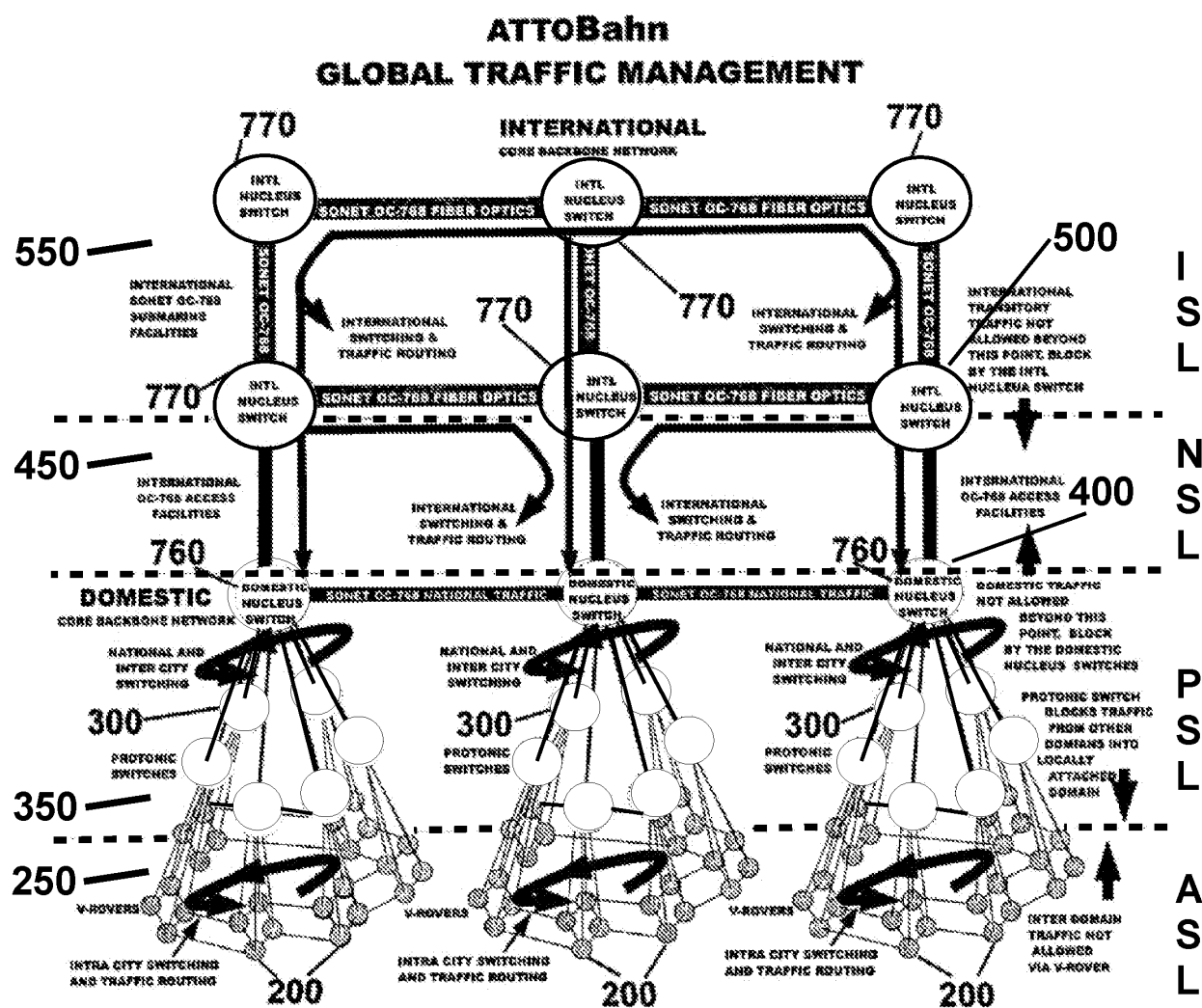
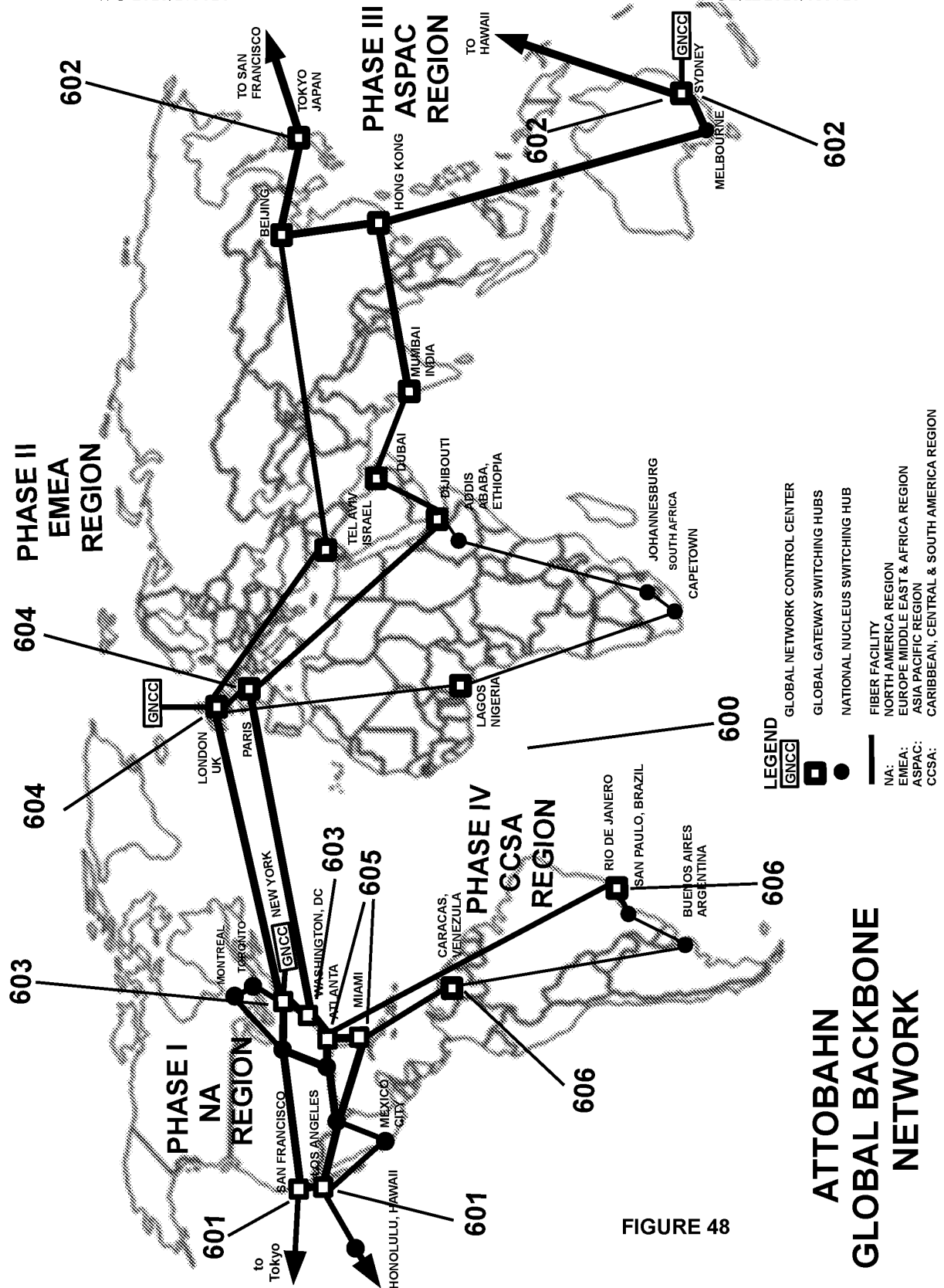


FIGURE 47



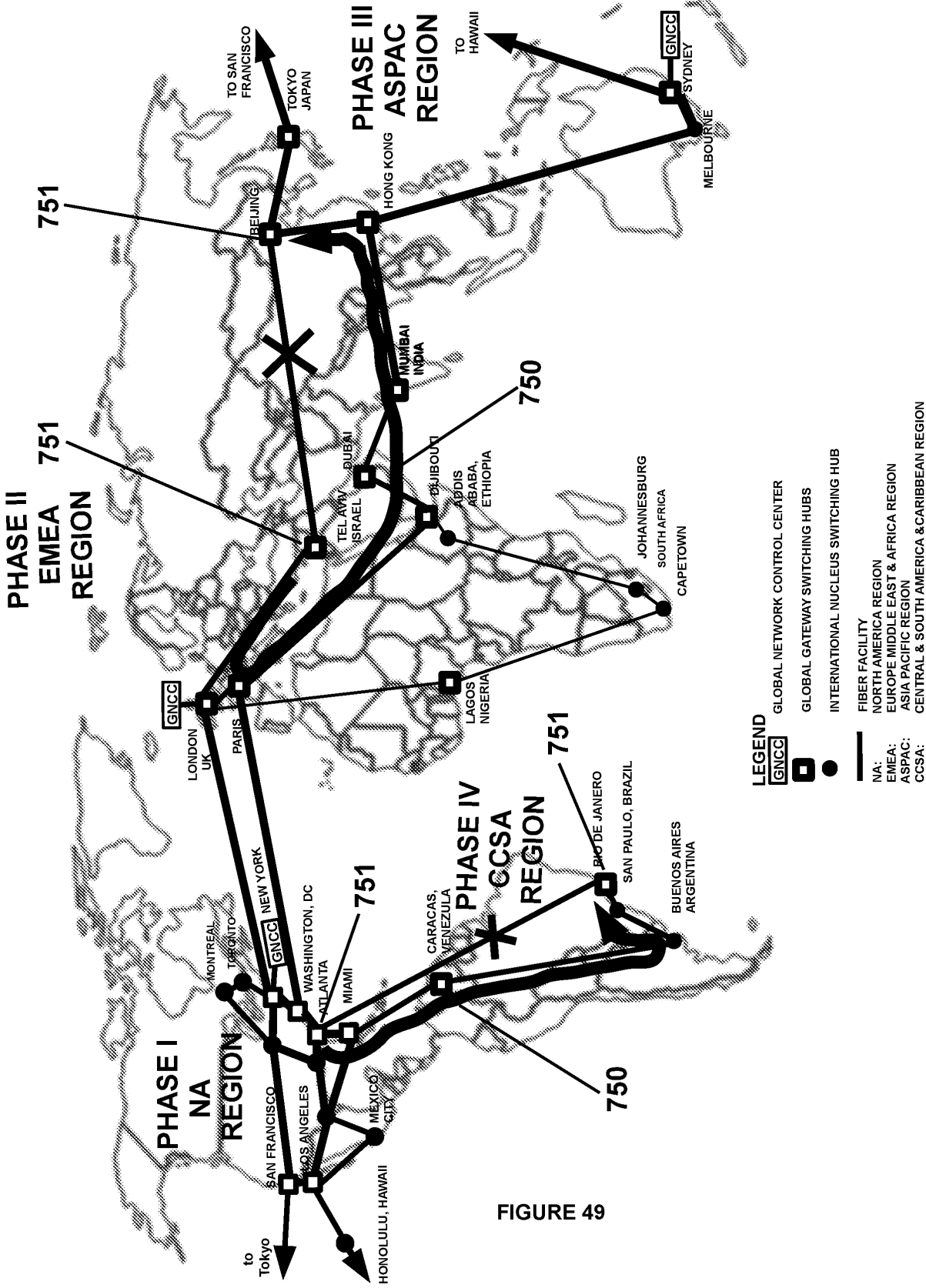


FIGURE 49

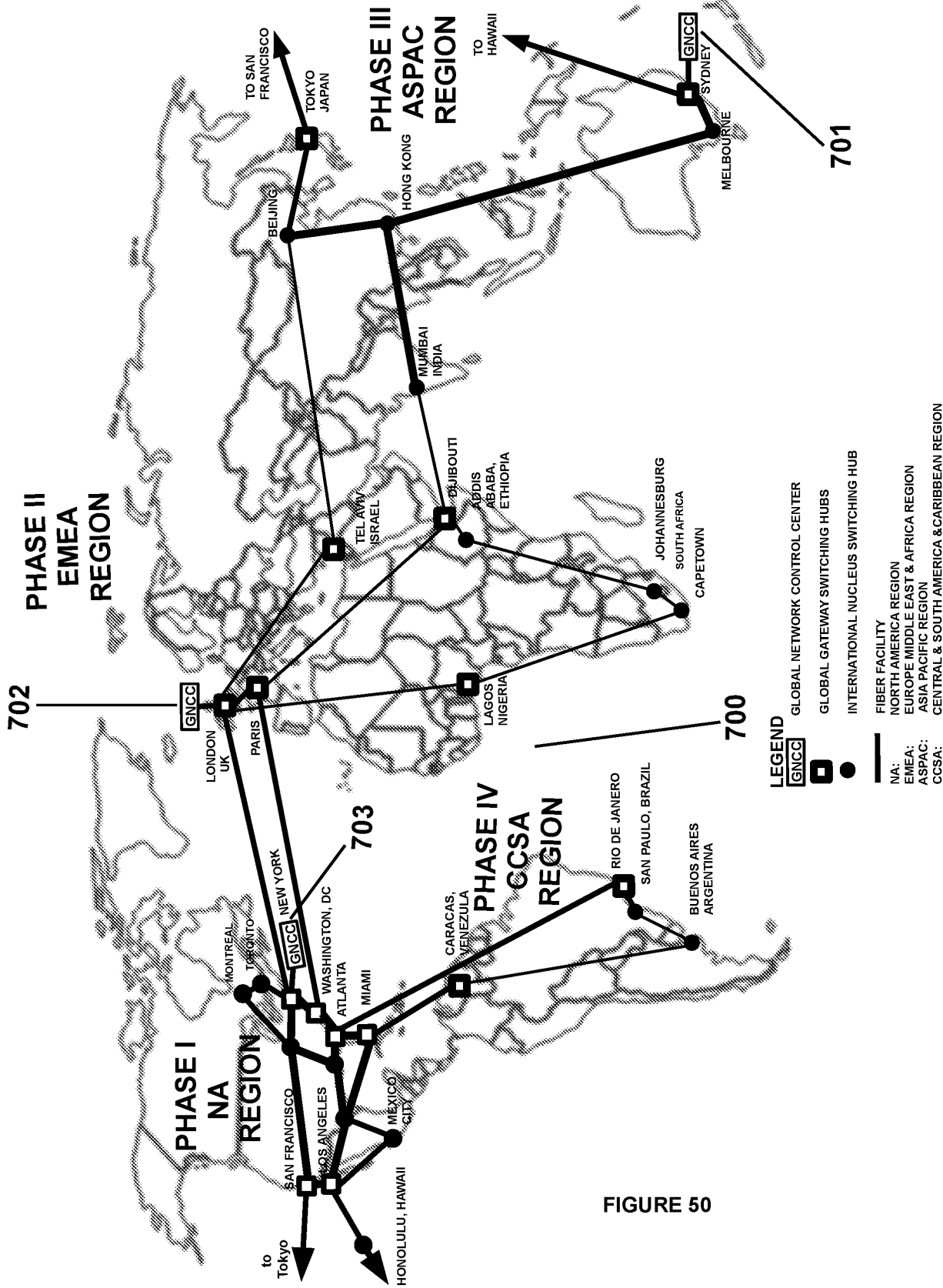


FIGURE 50

ATTOBAHN NETWORK MANAGEMENT SYSTEM

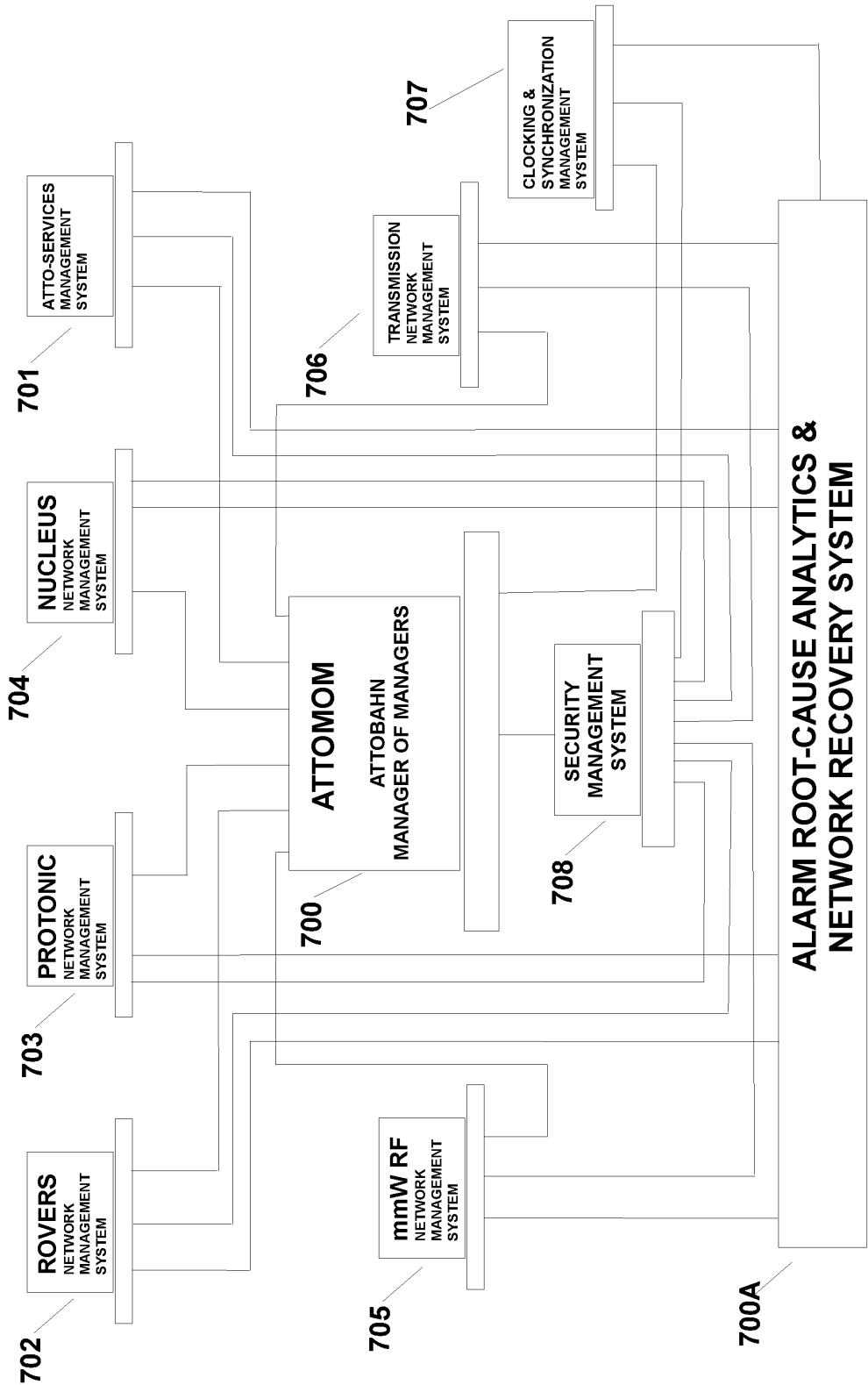


FIGURE 51

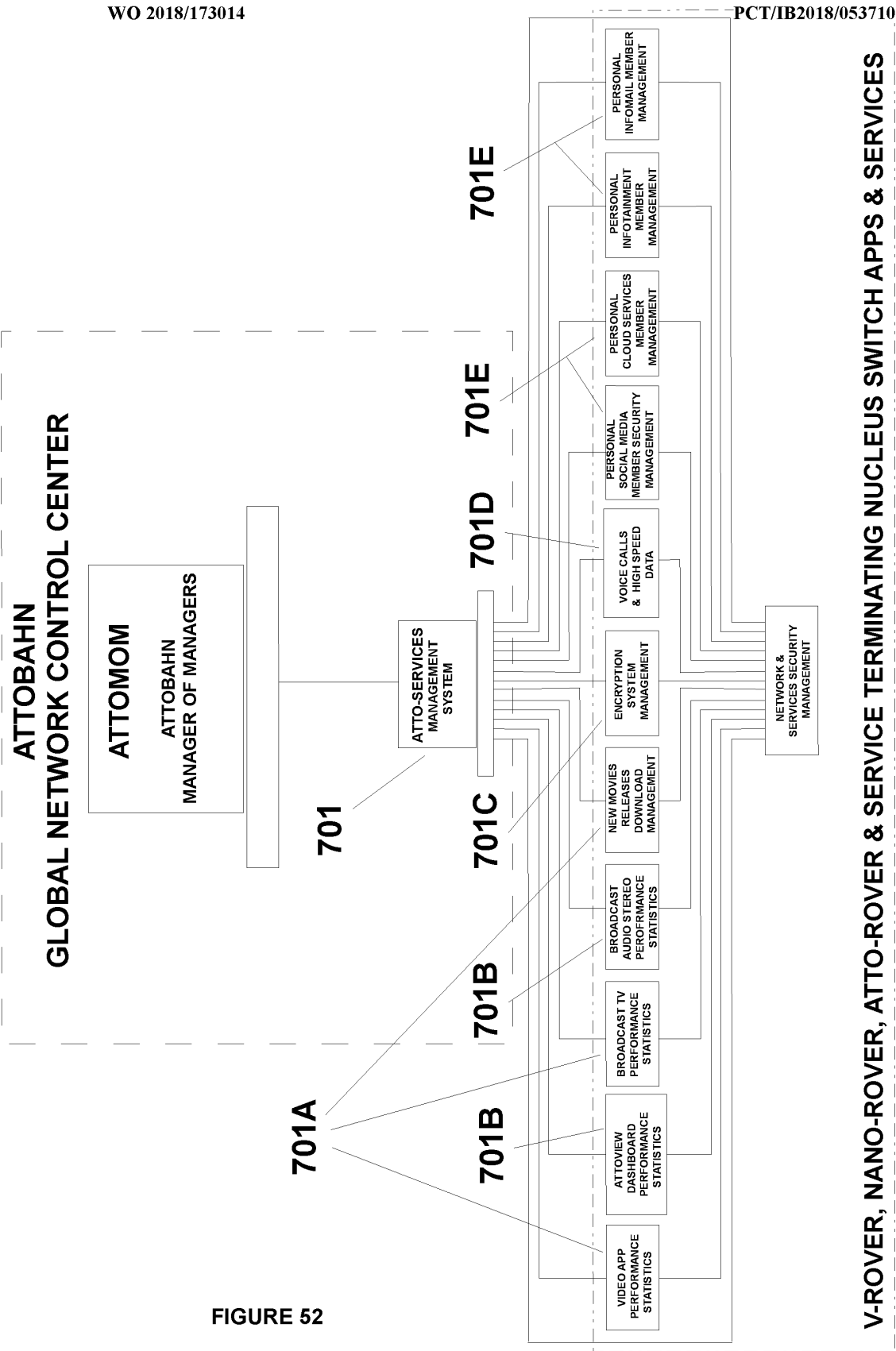


FIGURE 52

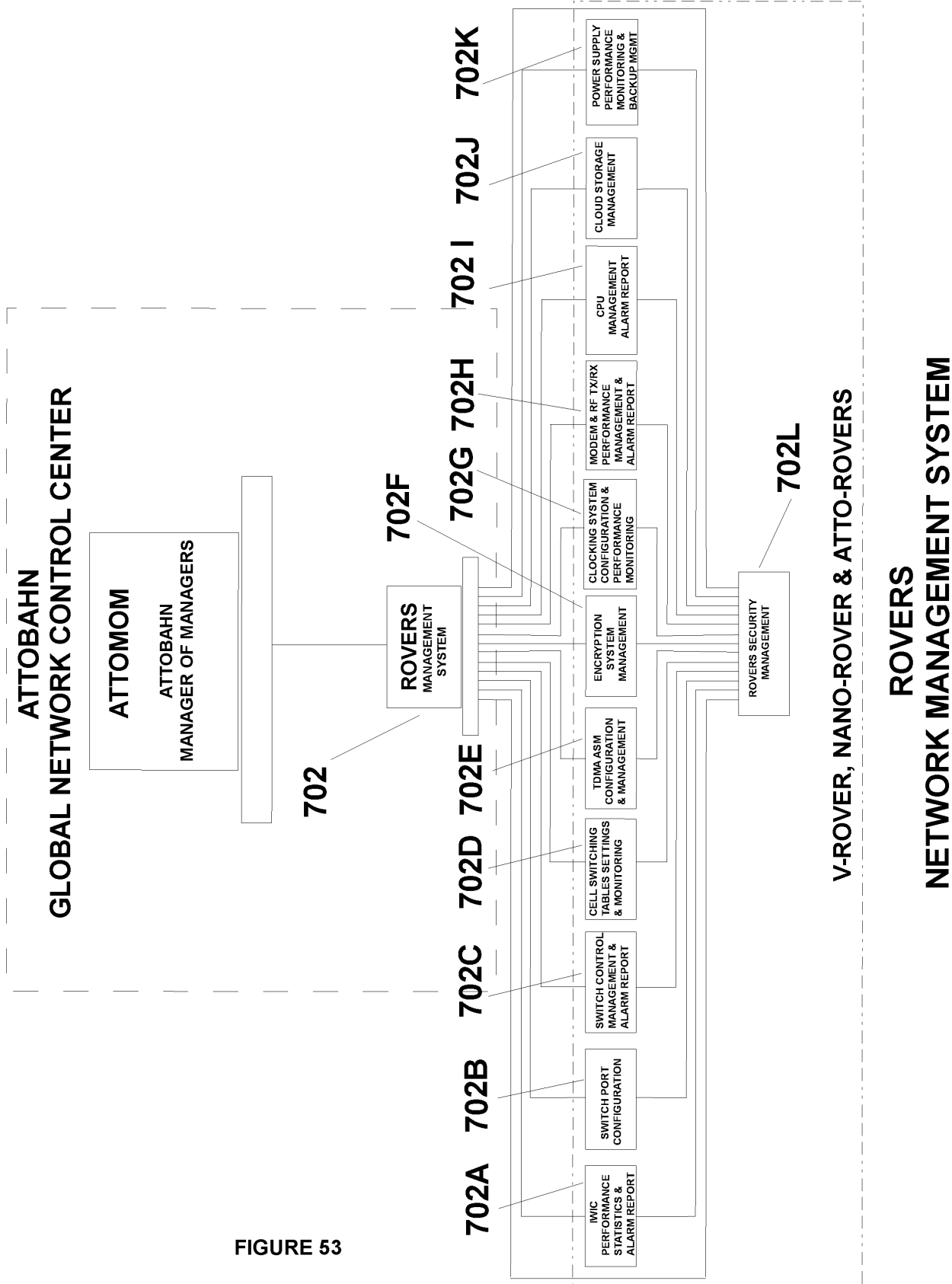


FIGURE 53

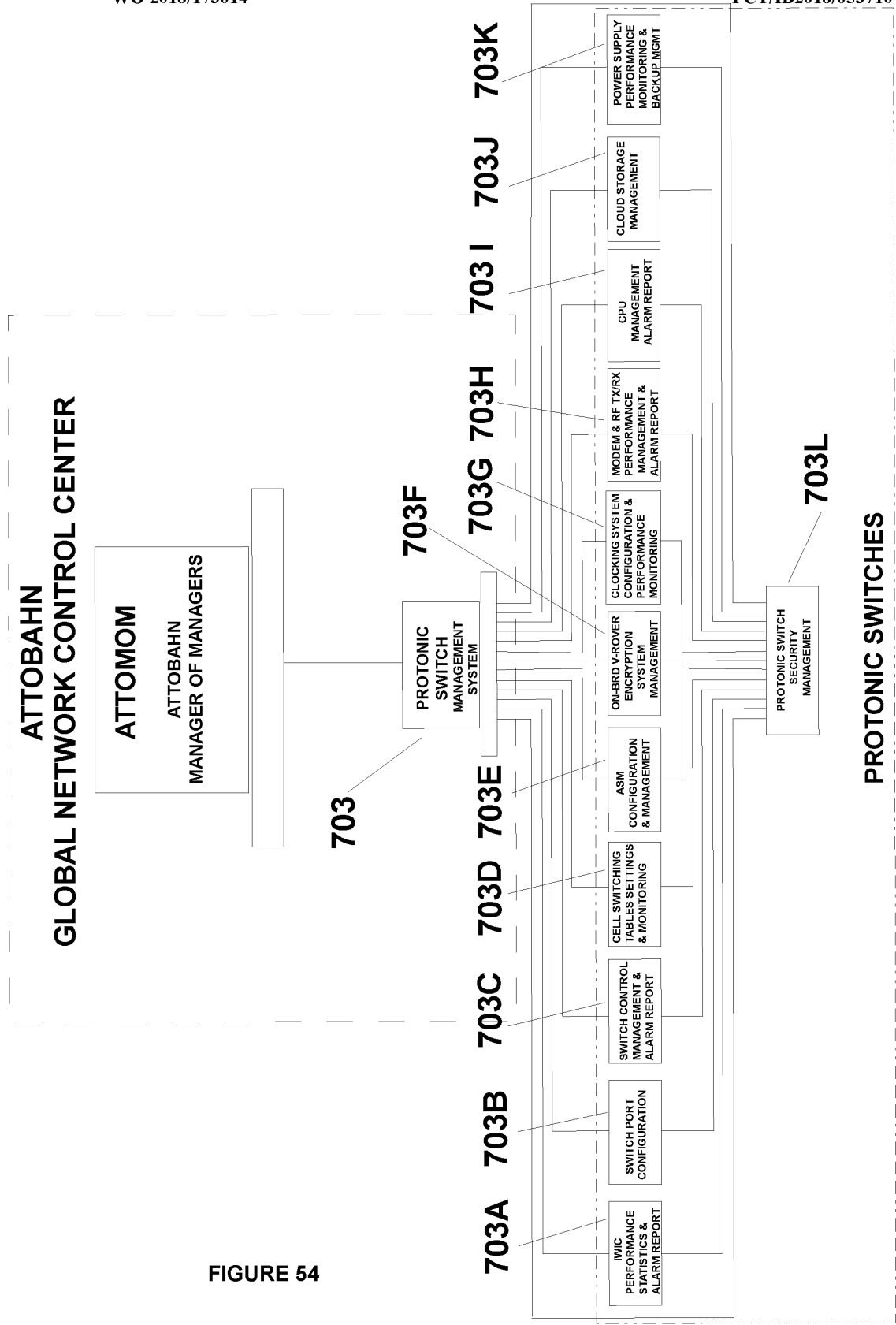


FIGURE 54

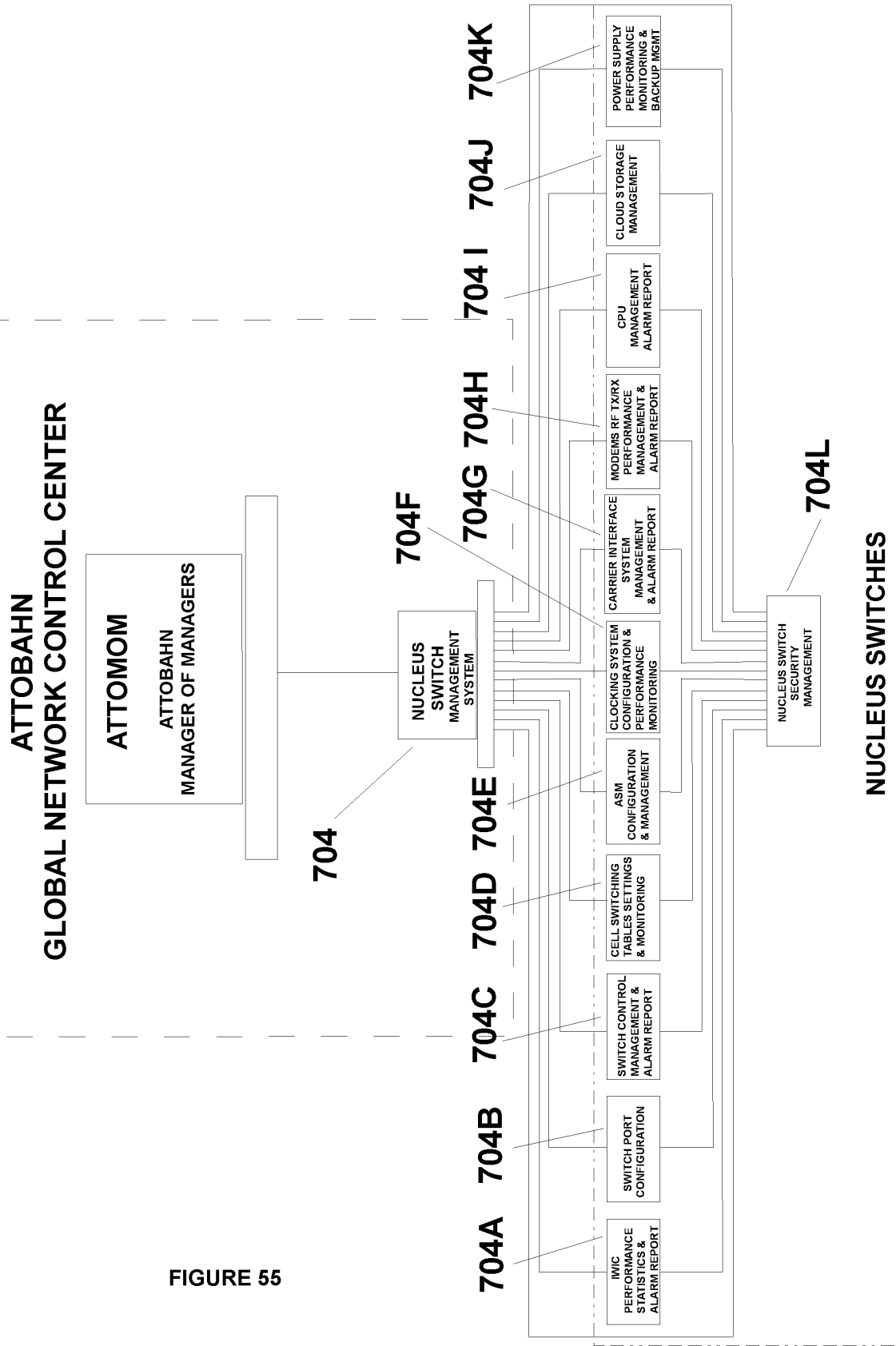


FIGURE 55

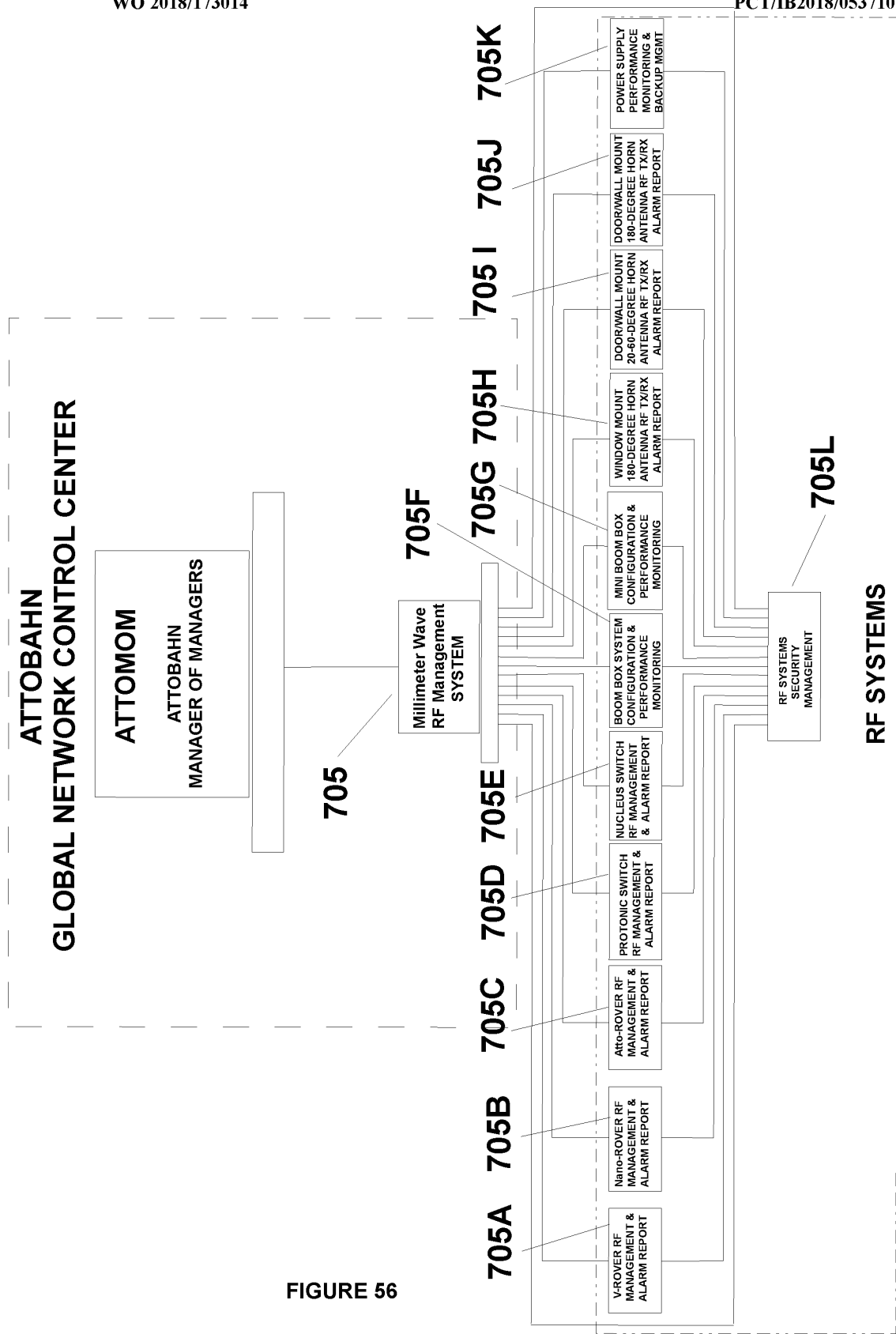
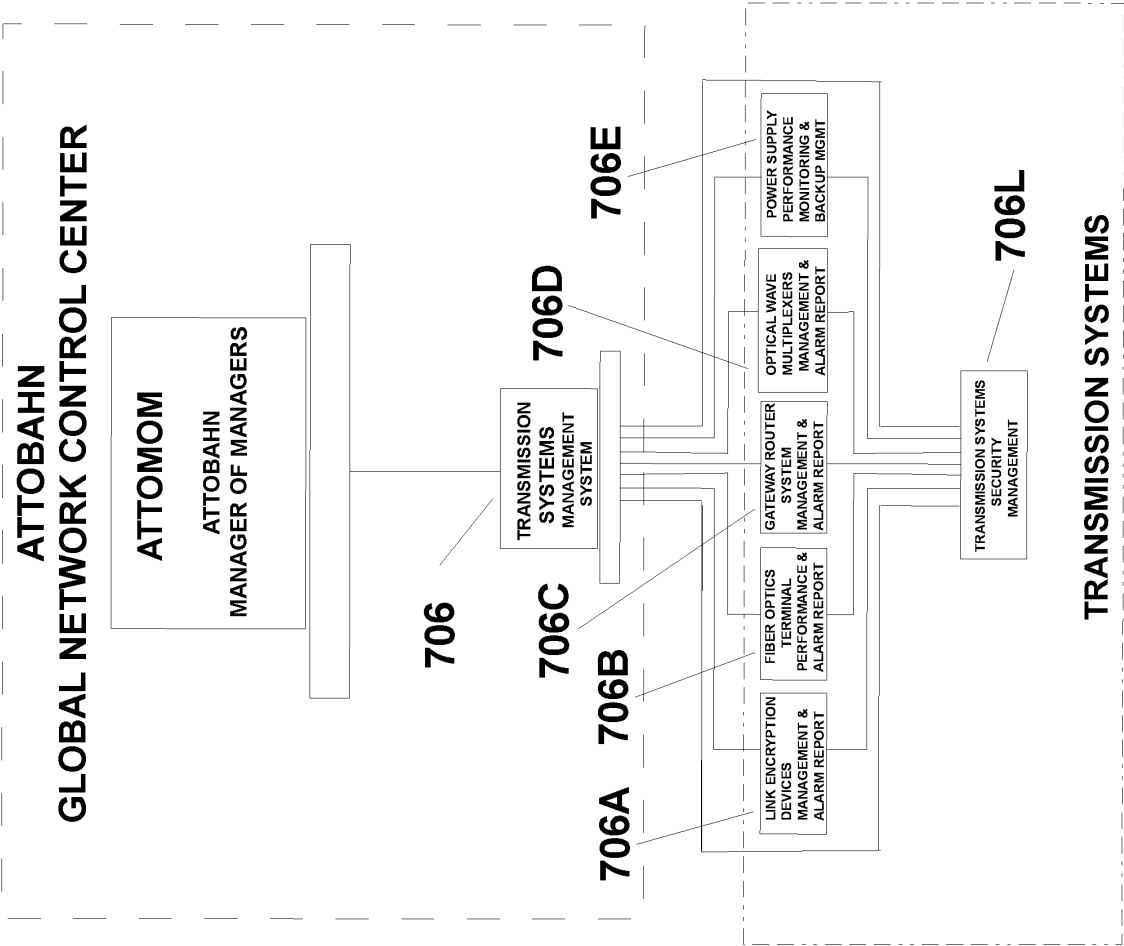


FIGURE 56



TRANSMISSION SYSTEMS
NETWORK MANAGEMENT SYSTEM

FIGURE 57

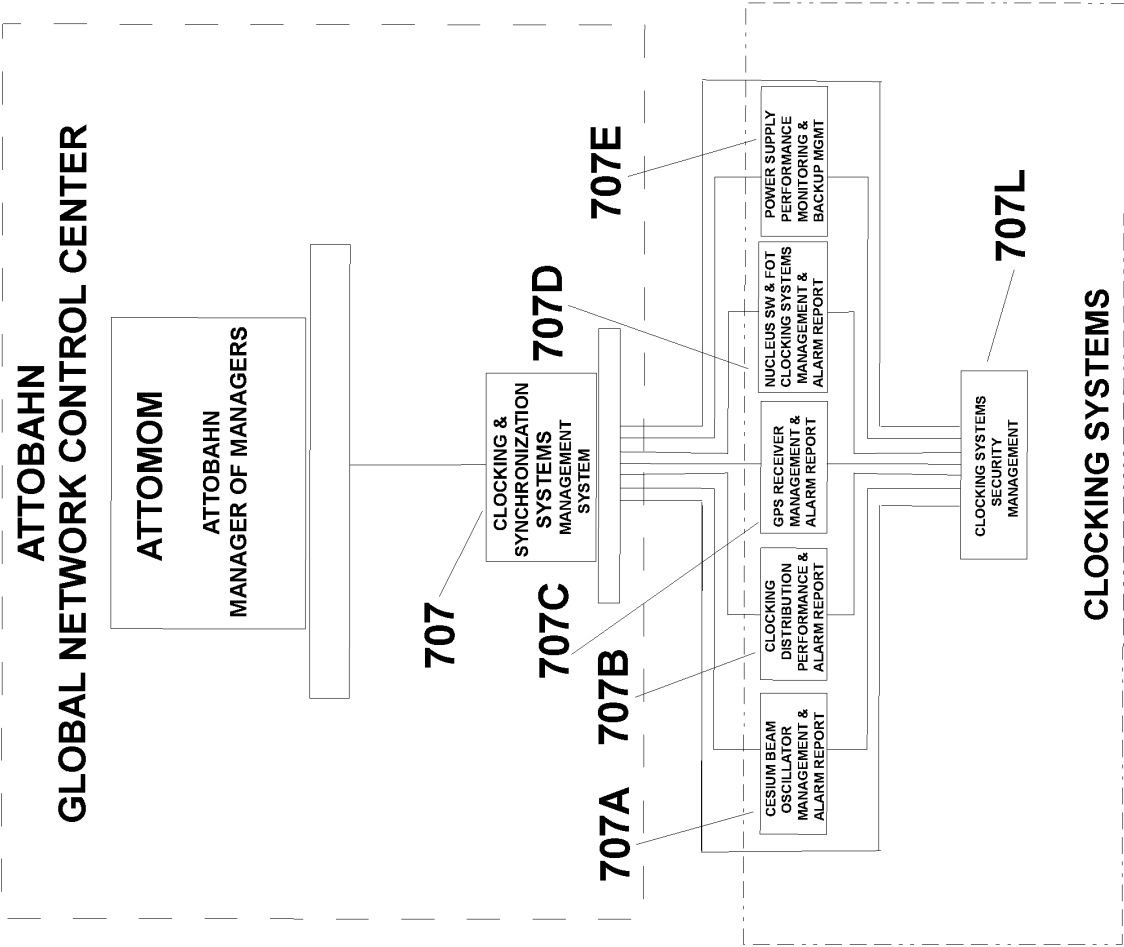
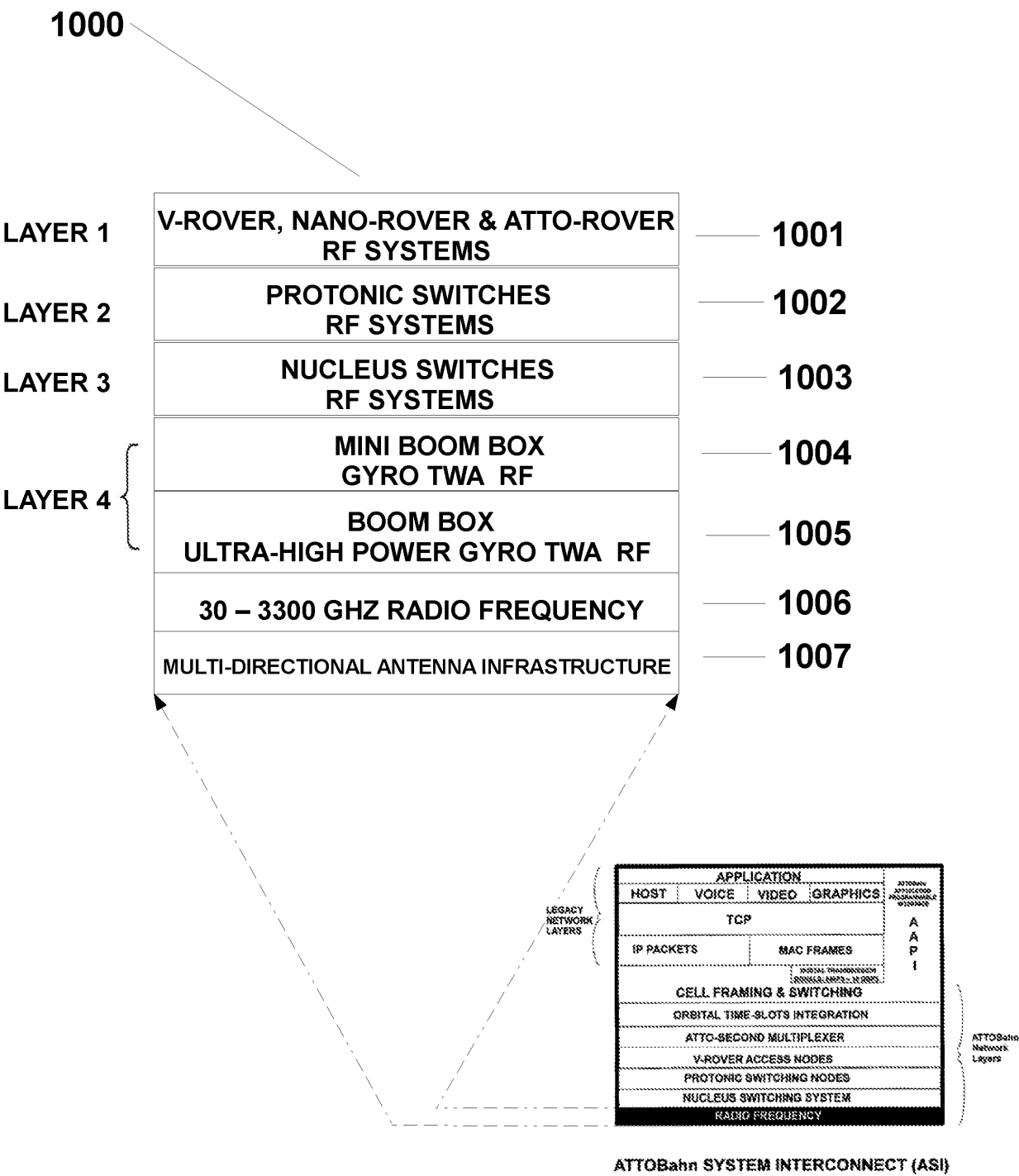
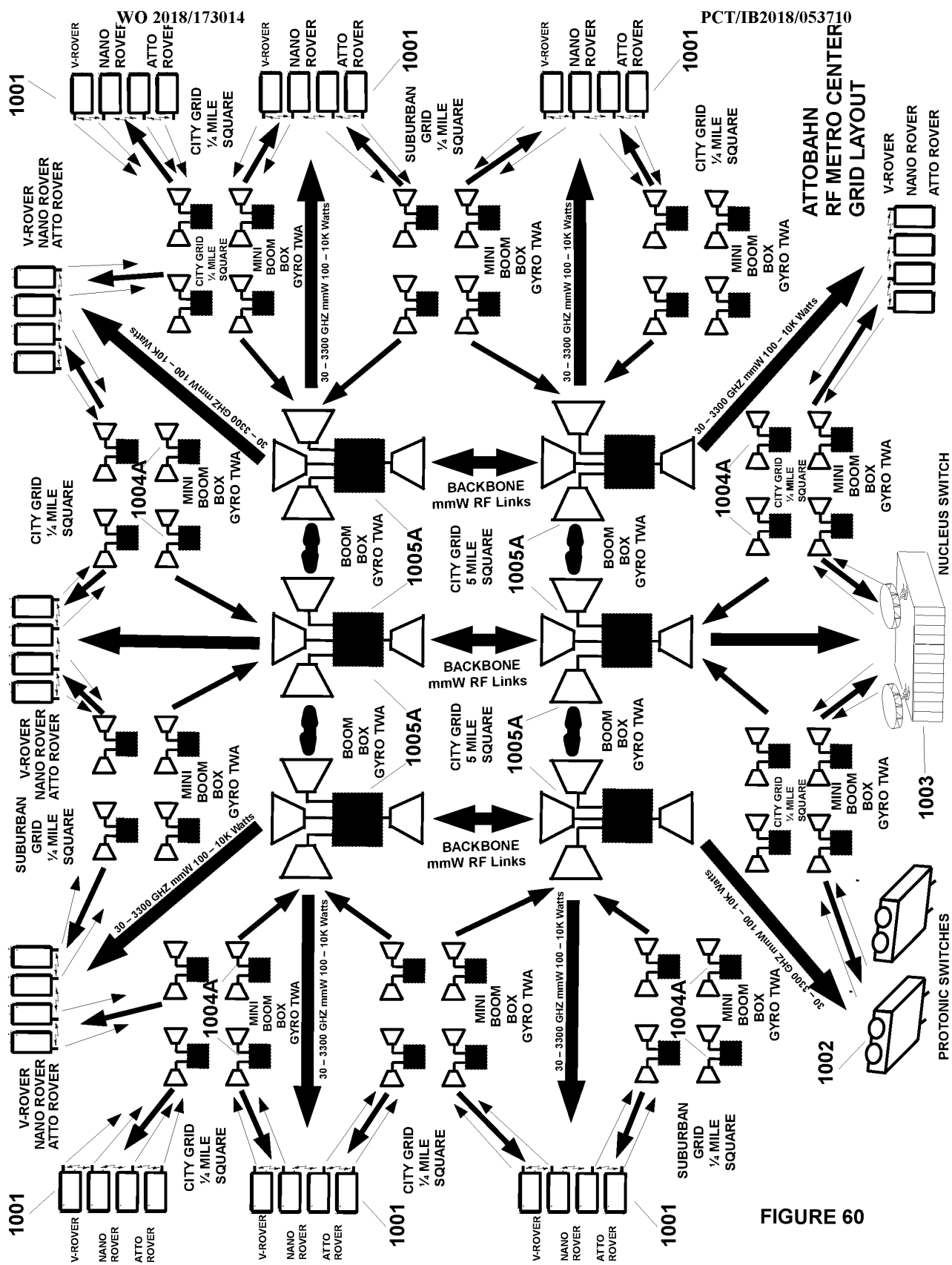


FIGURE 58



ATTOBAHN MILLIMETER WAVE RADIO FREQUENCY
NETWORK ARCHITECTURE

FIGURE 59



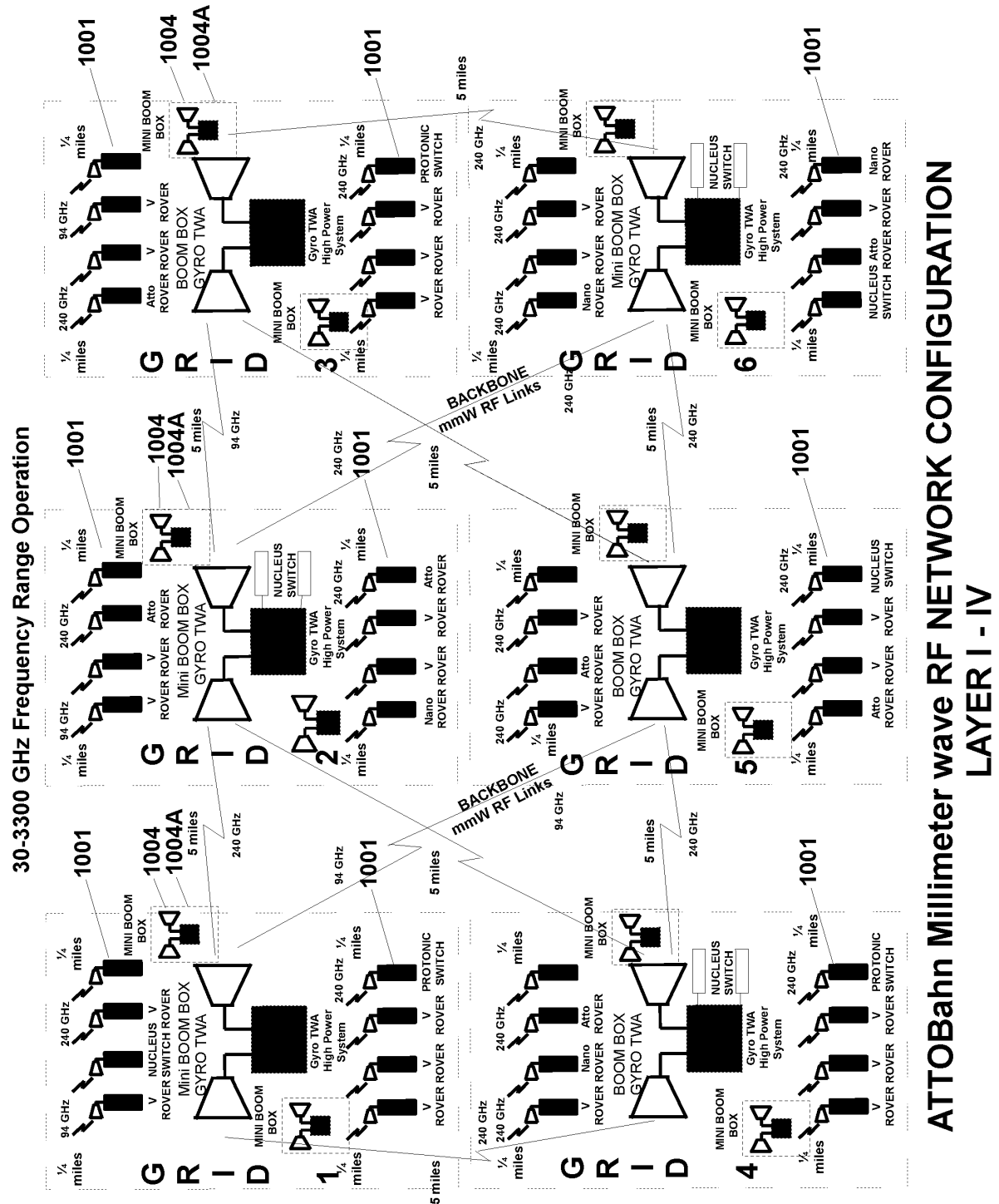


FIGURE 61

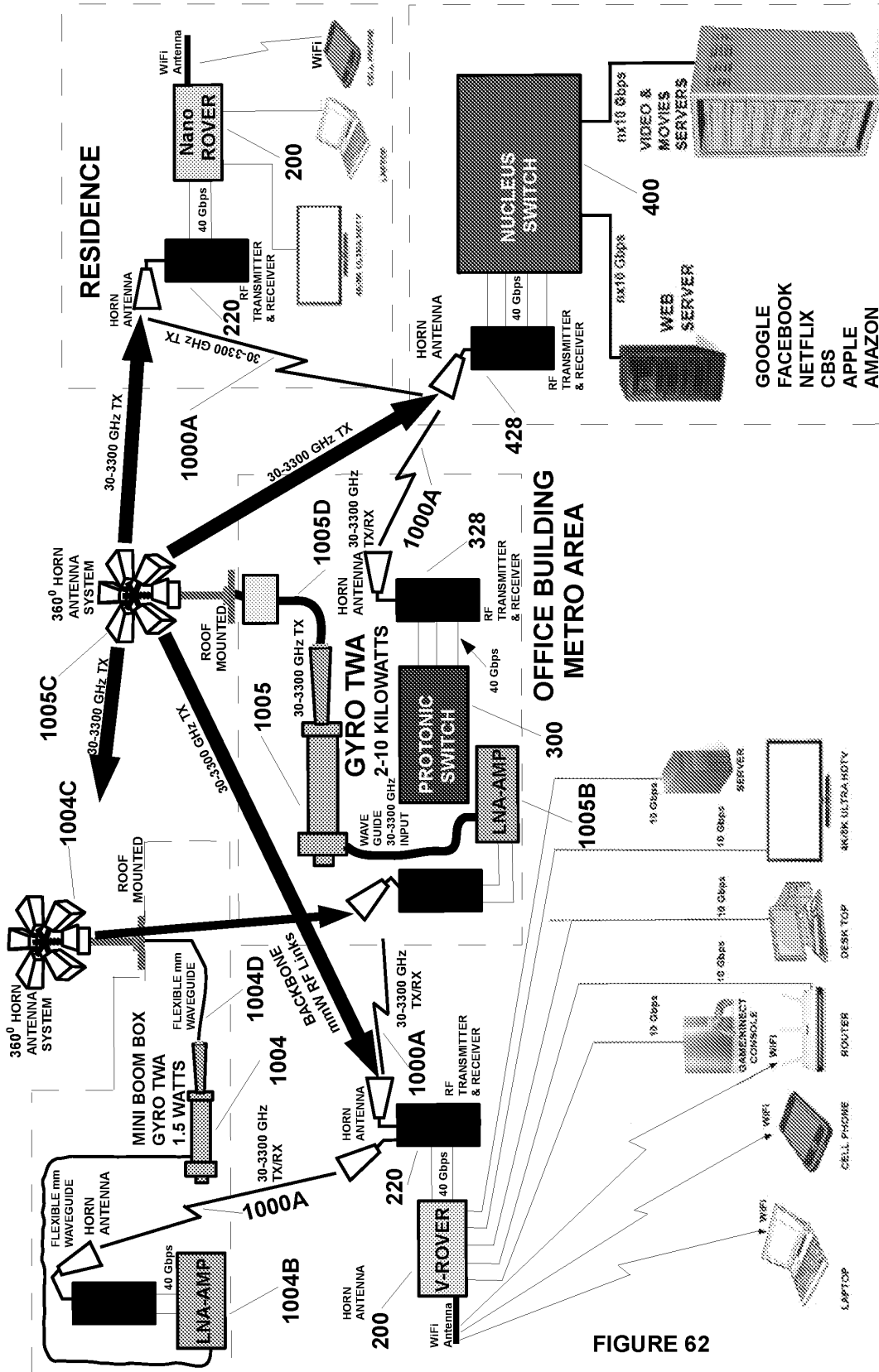
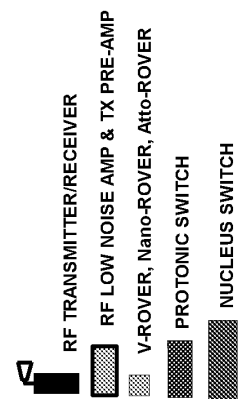


FIGURE 62

FIGURE 1.0



ATTOBAHN RF CONNECTIVITY DESIGN



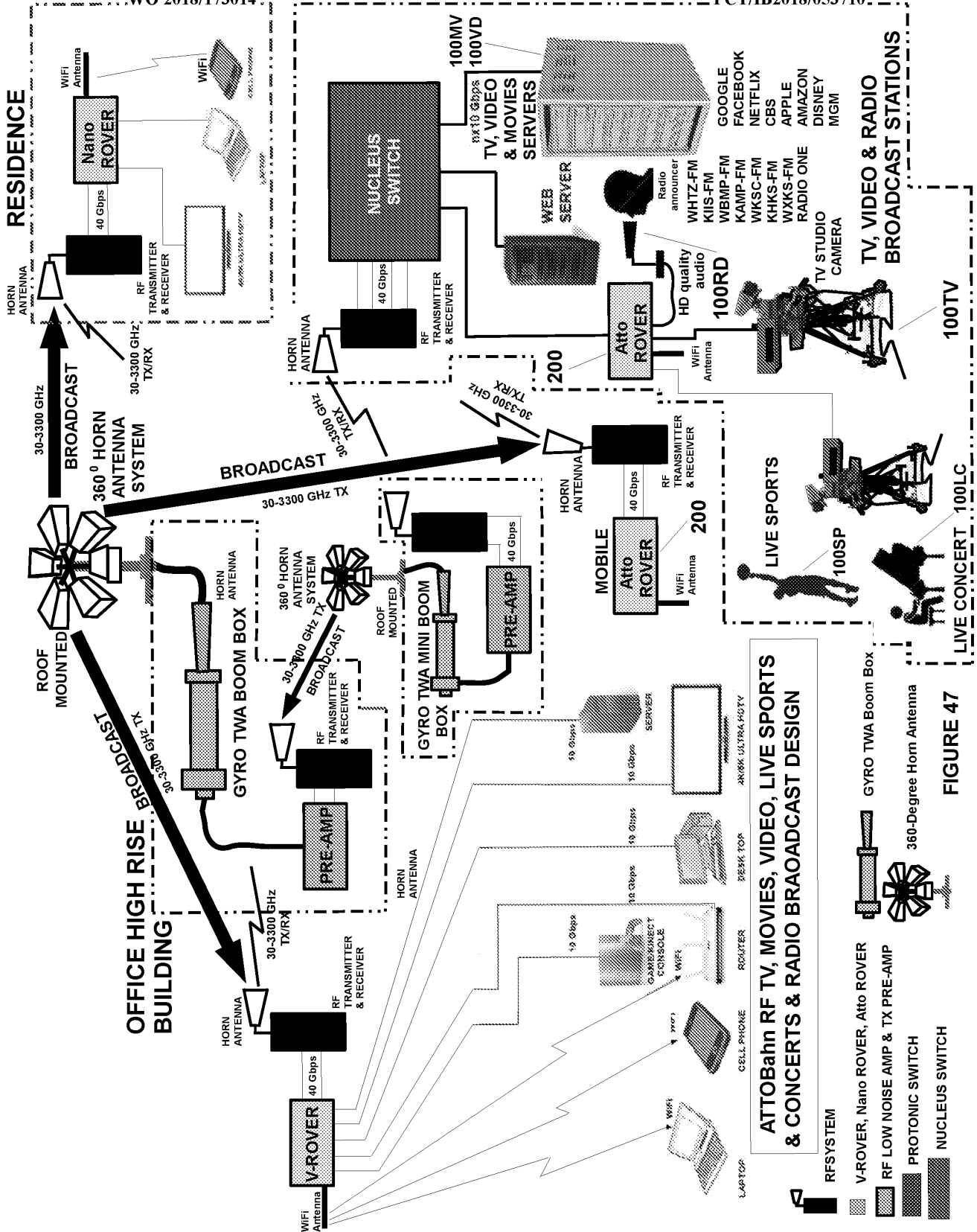


FIGURE 63

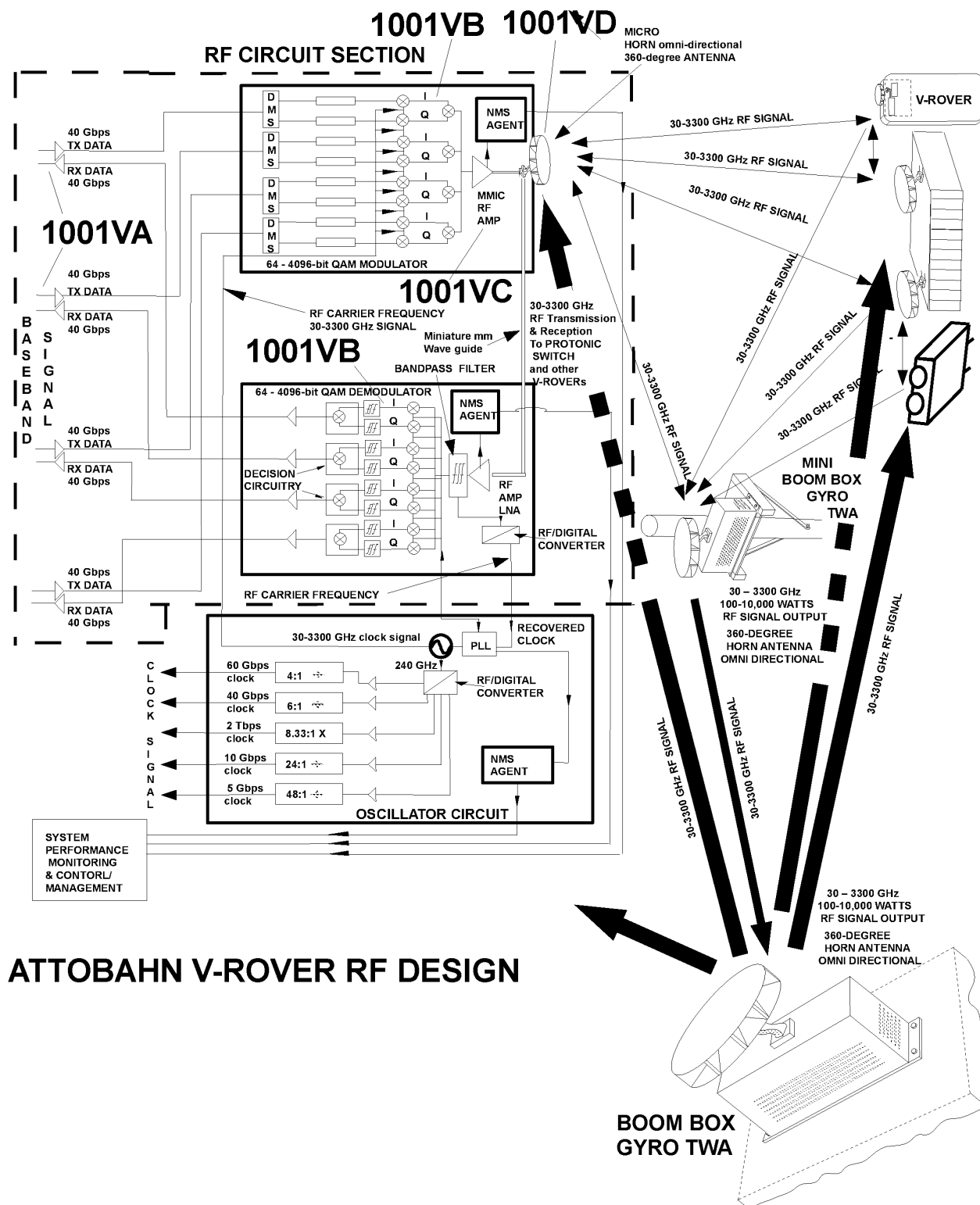


FIGURE 64

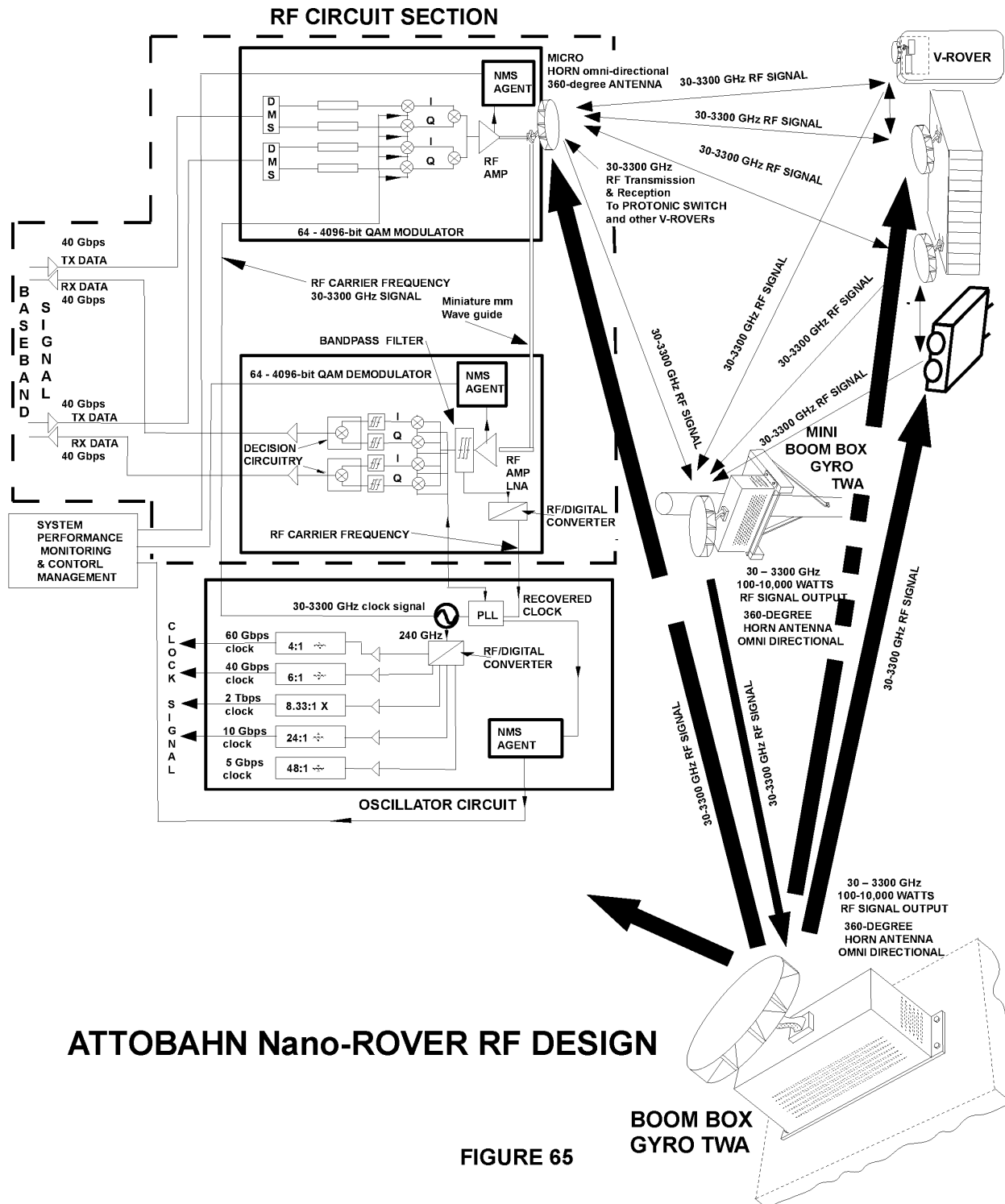


FIGURE 65

ATTOBAHN Atto-ROVER RF DESIGN

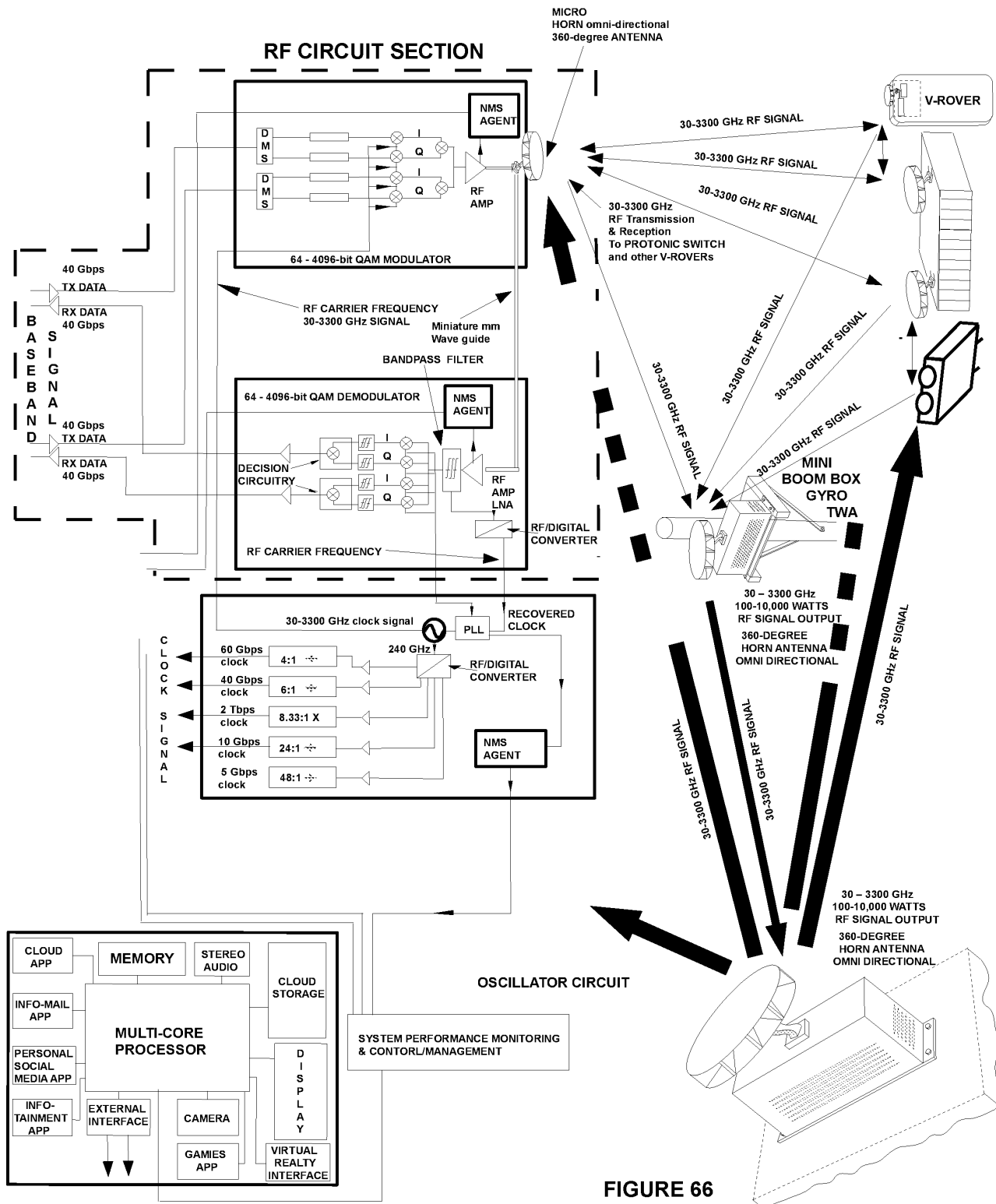


FIGURE 66

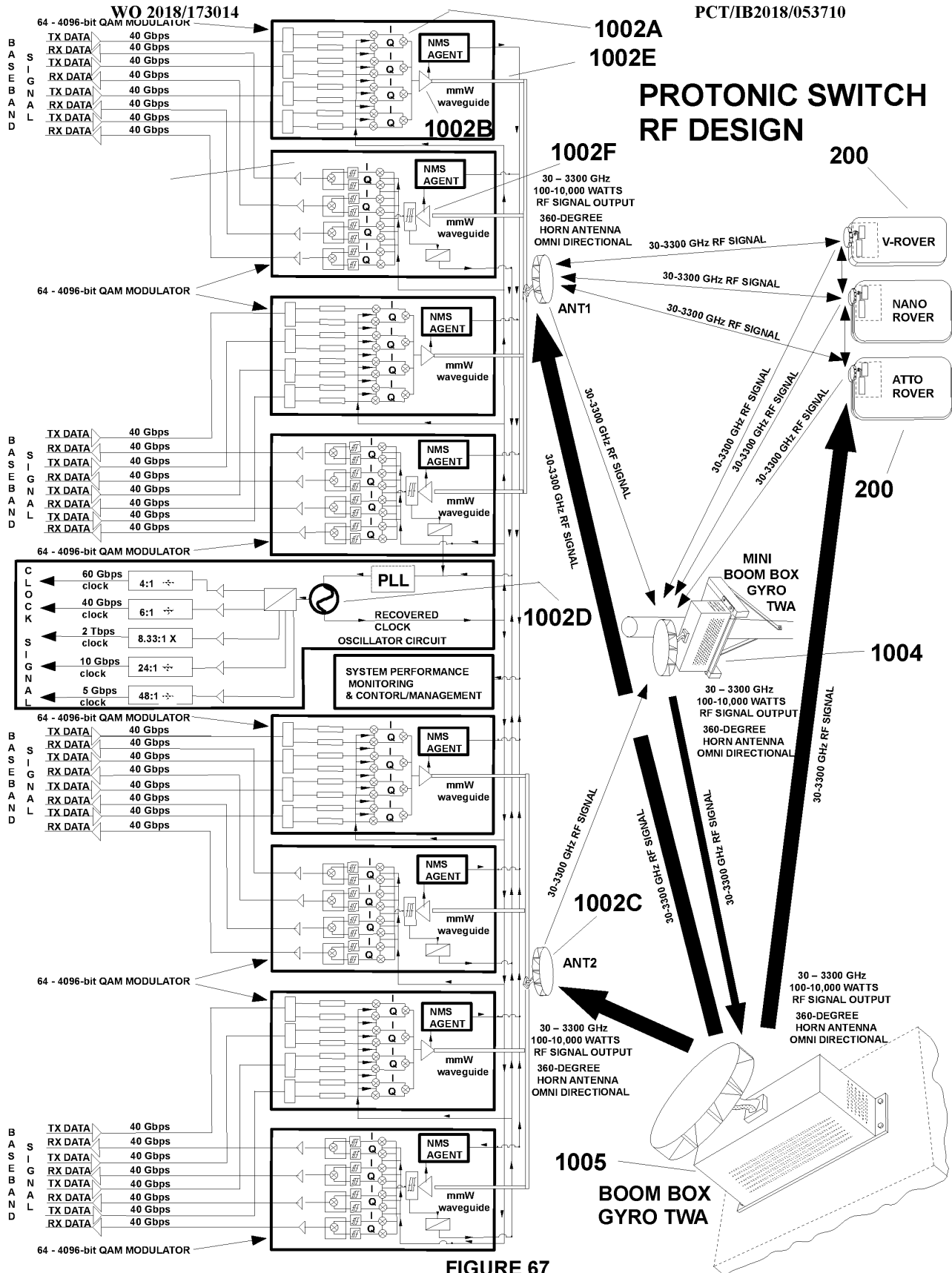


FIGURE 67



ATTOBAHN NETWORK INFRASTRUCTURE
MILLIMETER WAVE
ANTENNA ARHCITECTURE

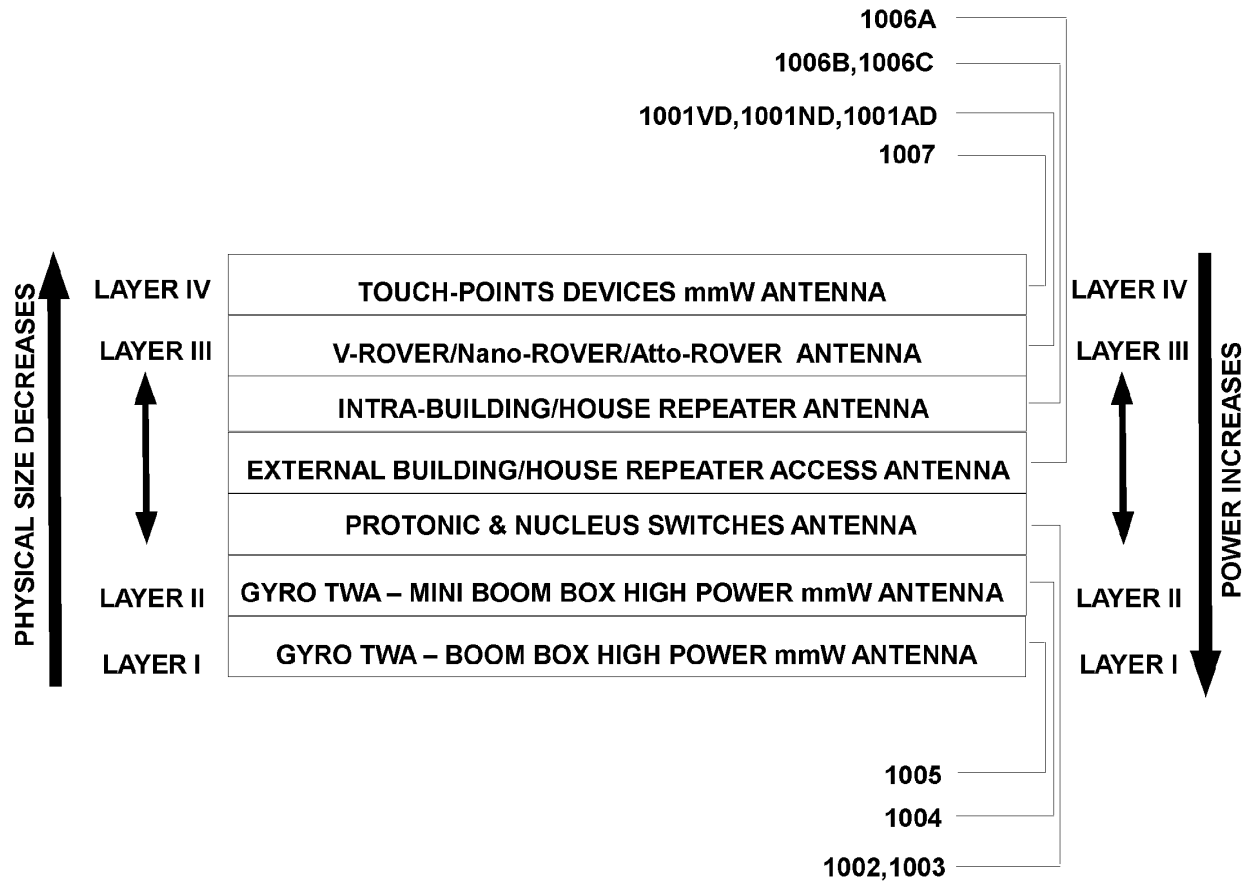


FIGURE 69

ATTOBAHN mmW ANTENNA ARCHITECTURE

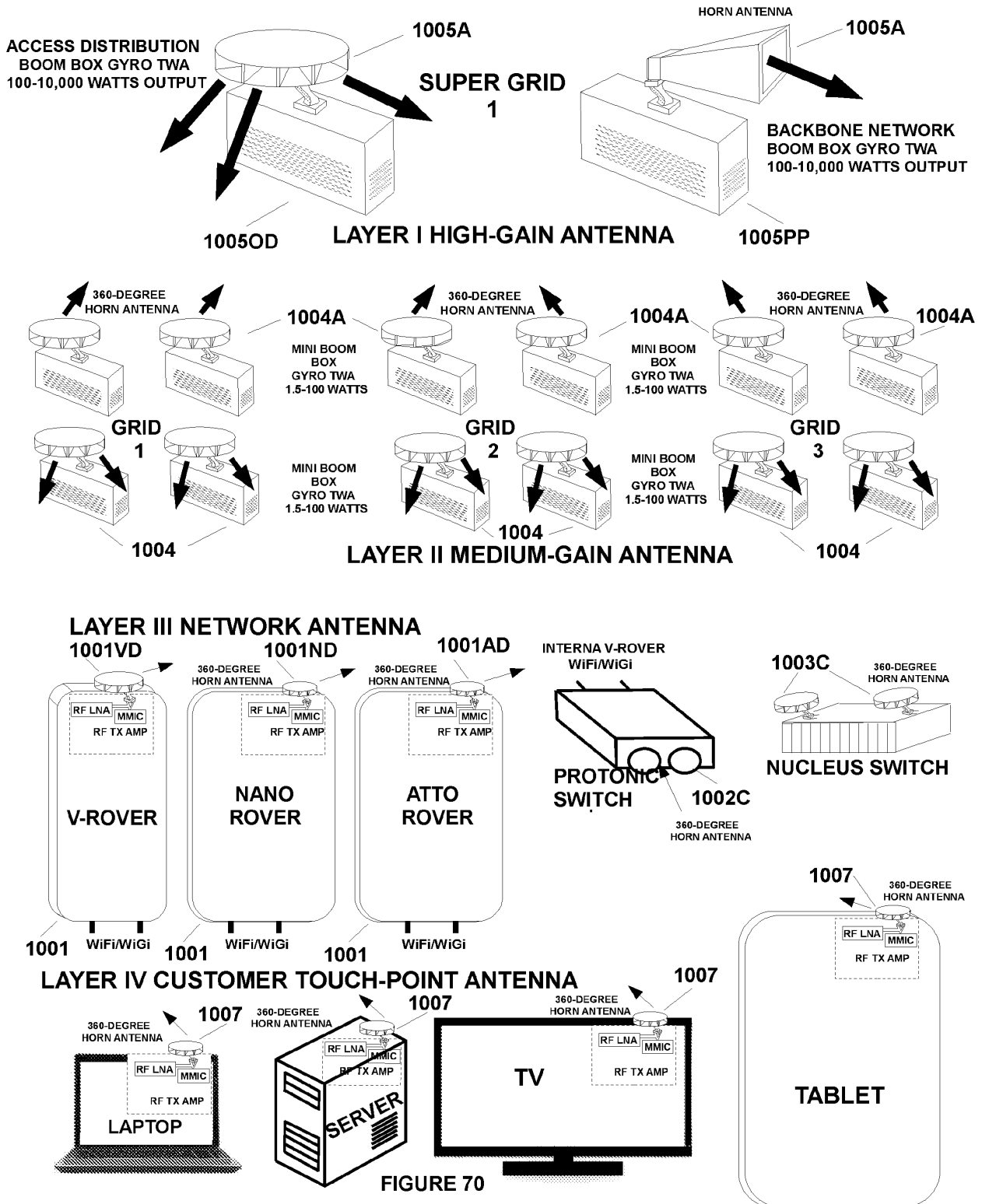
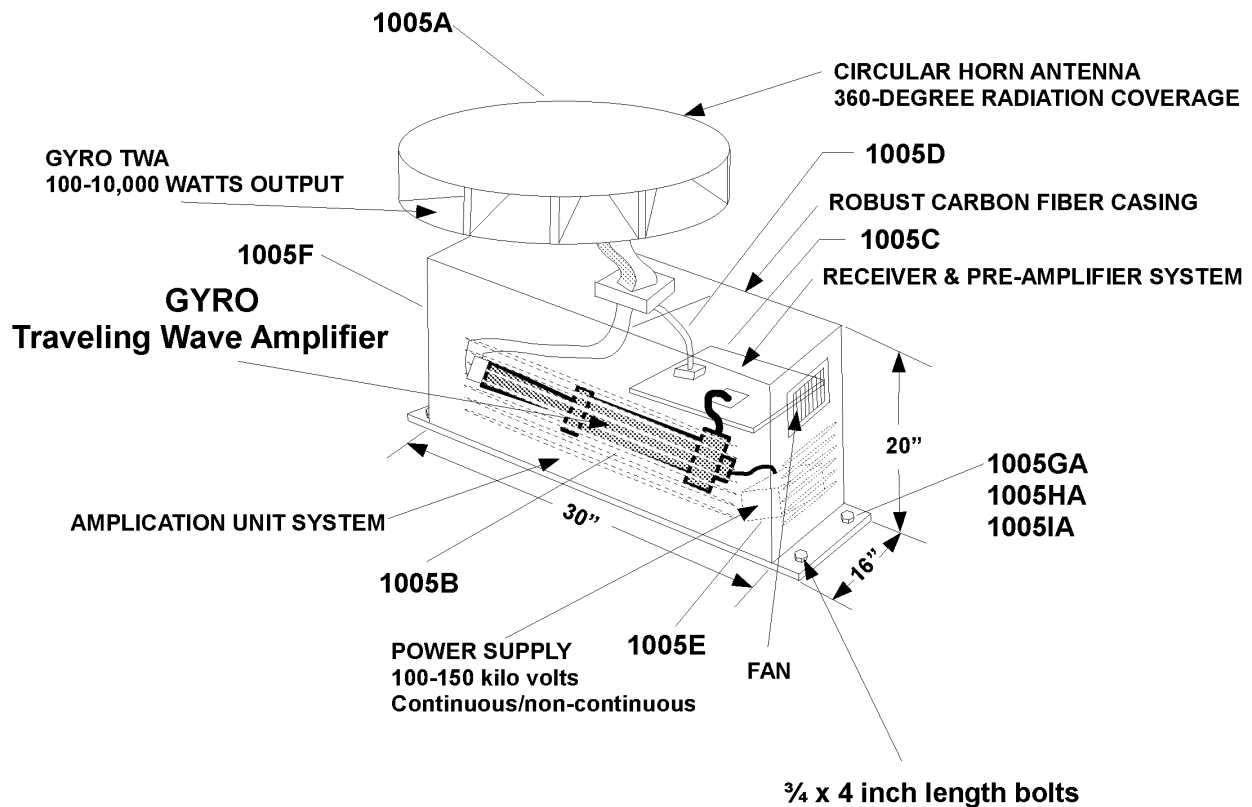


FIGURE 70

ATTOBHAN ULTRA-HIGH POWER mmW AMPLIFIER SYSTEM

OMNI-DIRECTIONAL/MULTI-POINT BOOM BOX mmW AMPLIFIER CIRCULAR FEED HORN

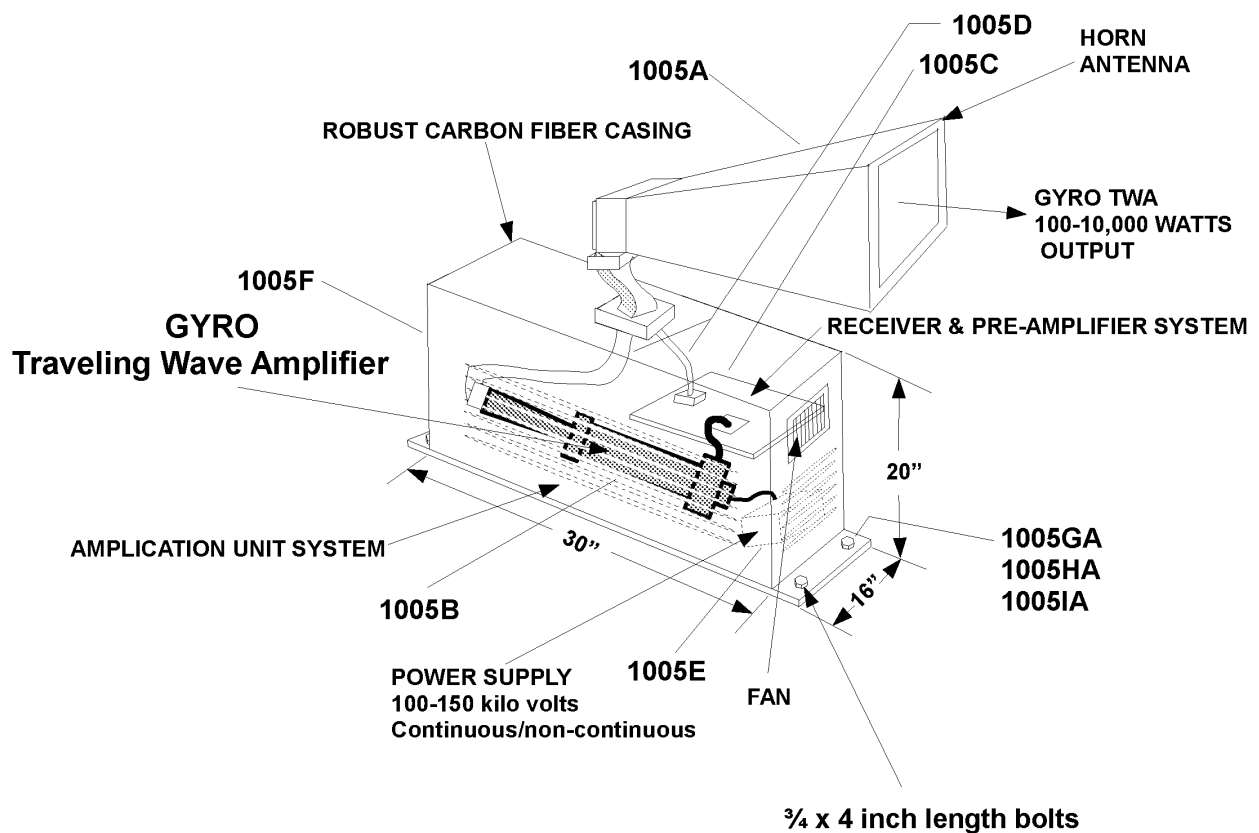


ATTOBAHN BOOM BOX GYRO TWA SYSTEM DESIGN

FIGURE 71

ATTOBHAN ULTRA-HIGH POWER mmW AMPLIFIER SYSTEM

POINT-TO-POINT BACKBONE
BOOM BOX mmW AMPLIFIER
RECTANGULAR FEED HORN



ATTOBAHN BOOM BOX
GYRO TWA SYSTEM DESIGN
BACKBONE NETWORK

FIGURE 72

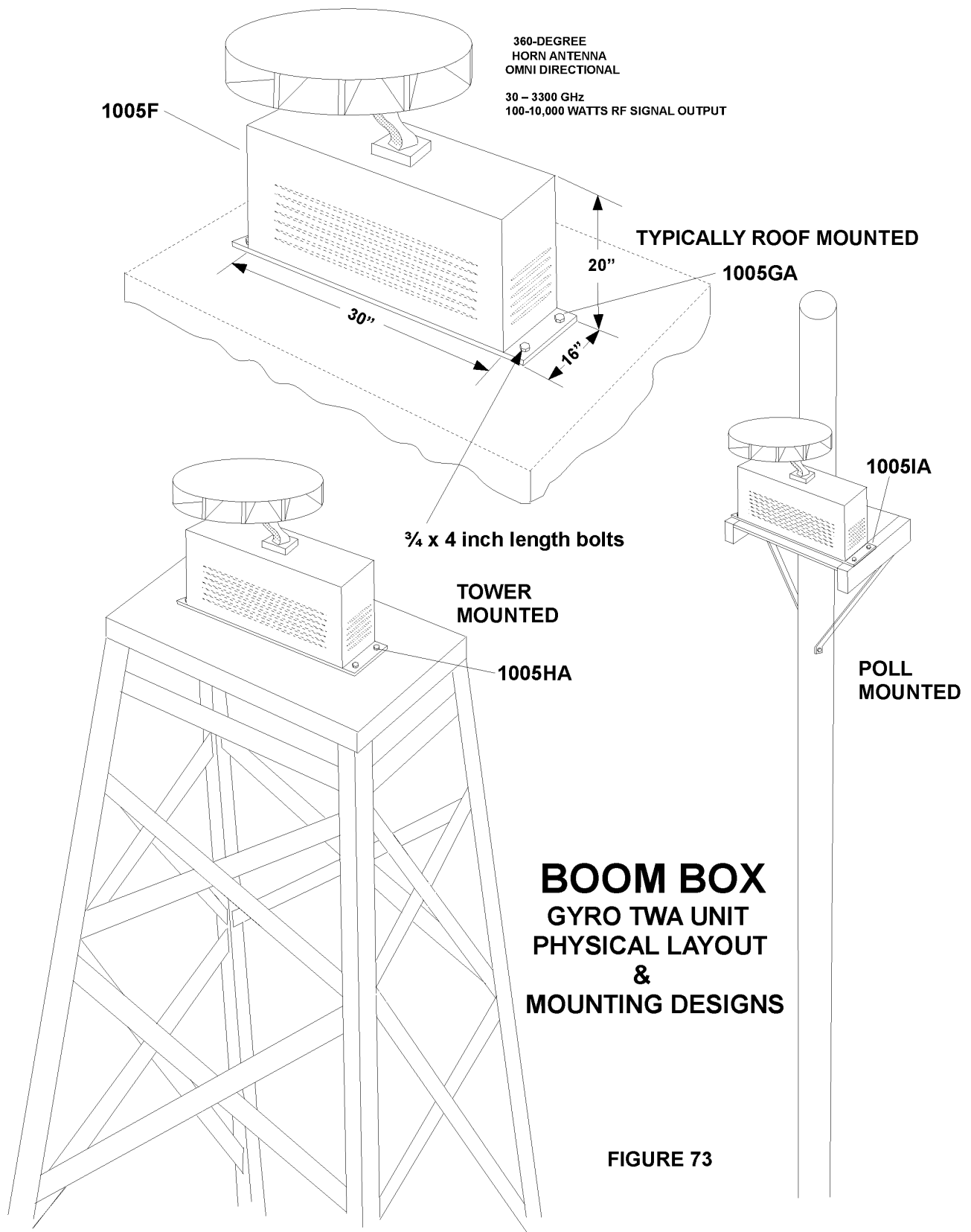


FIGURE 73

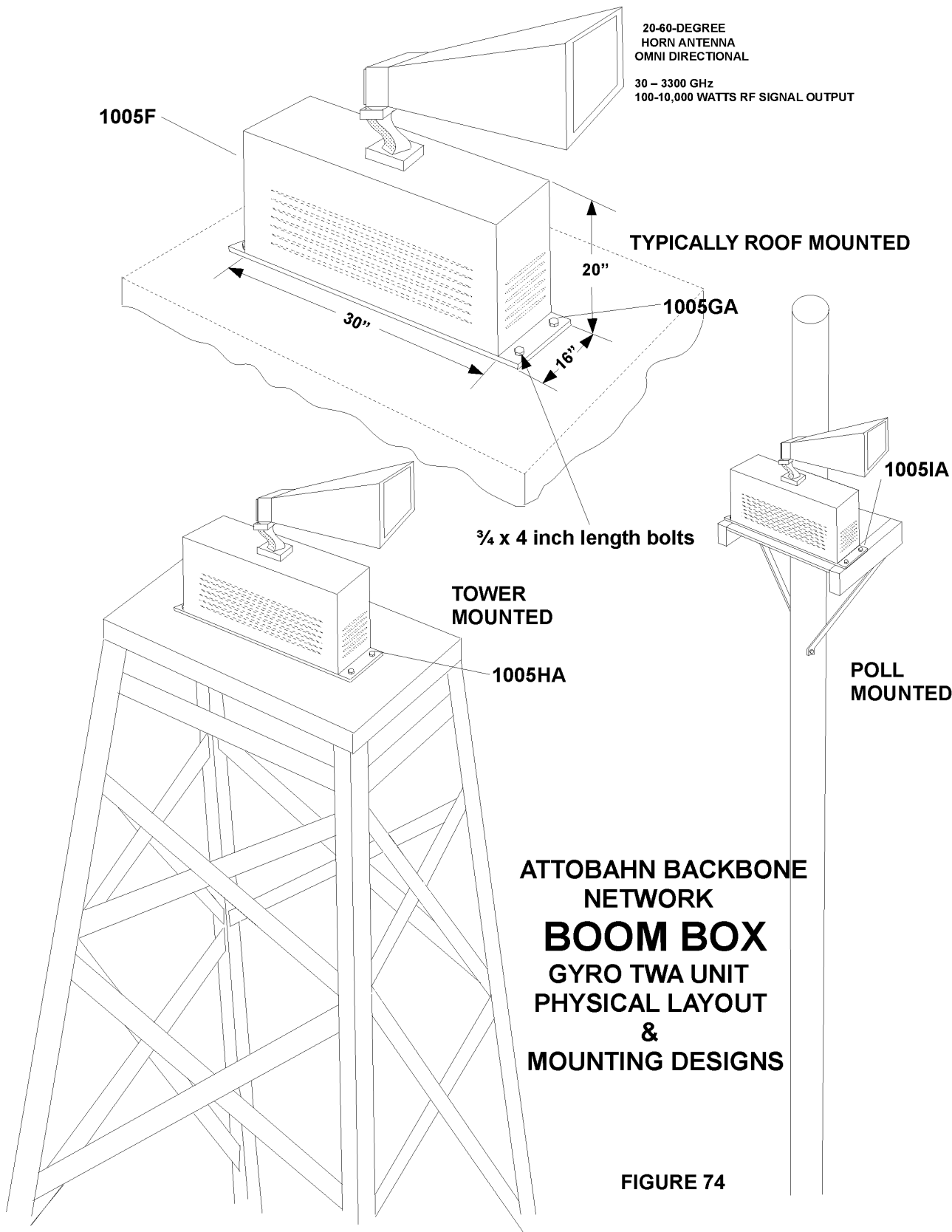
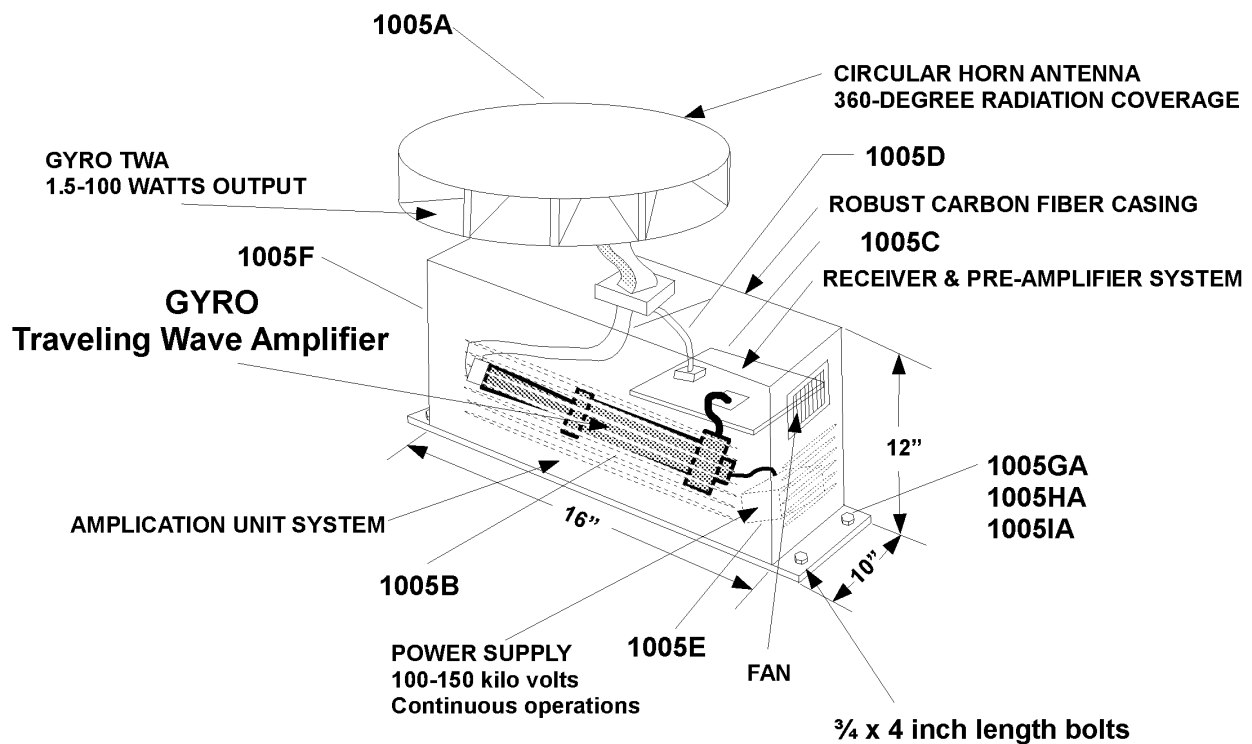


FIGURE 74

ATTOBHAN HIGH POWER mmW AMPLIFIER SYSTEM

MINI BOOM BOX mmW AMPLIFIER



ATTOBAHN MINI BOOM BOX GYRO TWA SYSTEM DESIGN

FIGURE 75

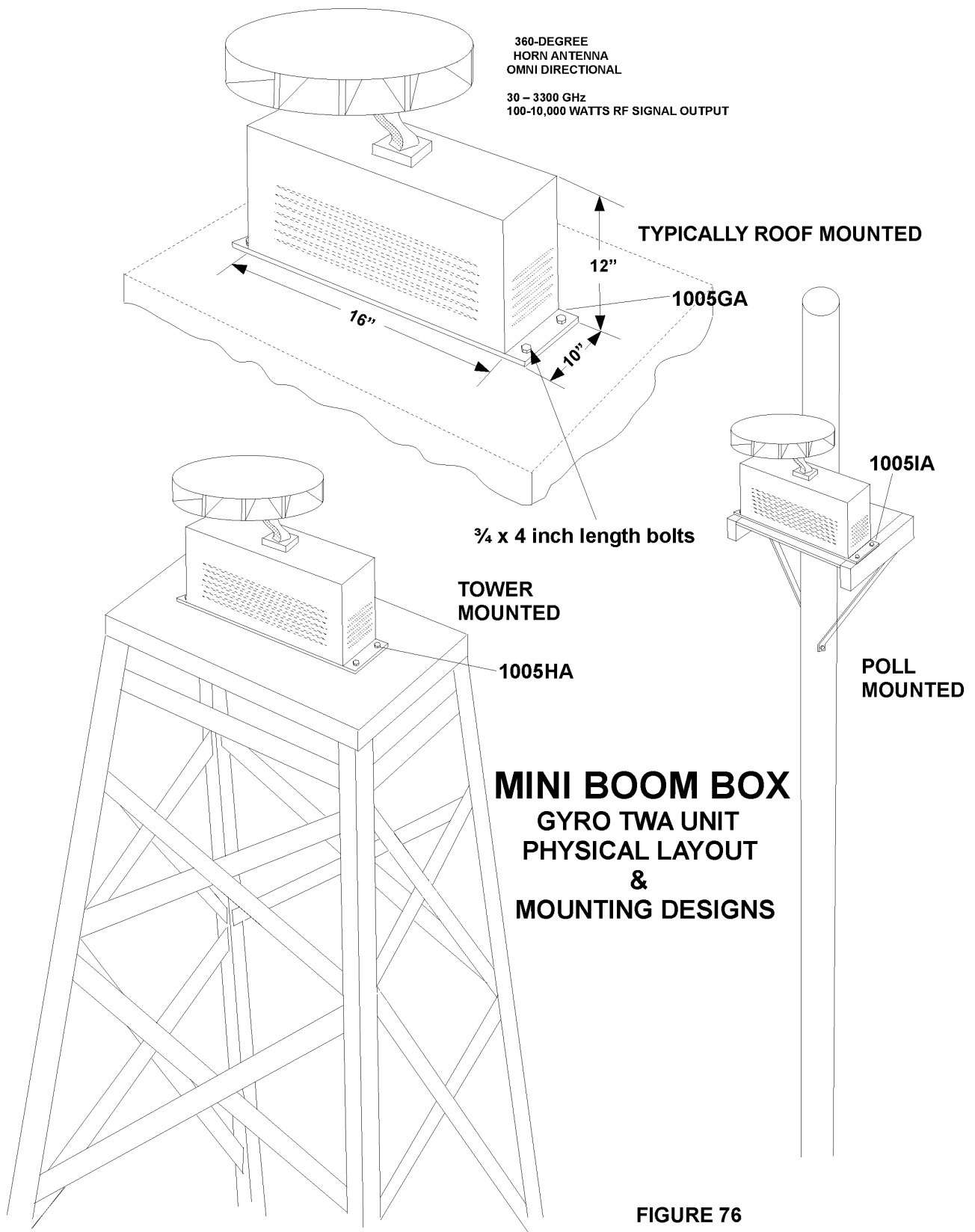
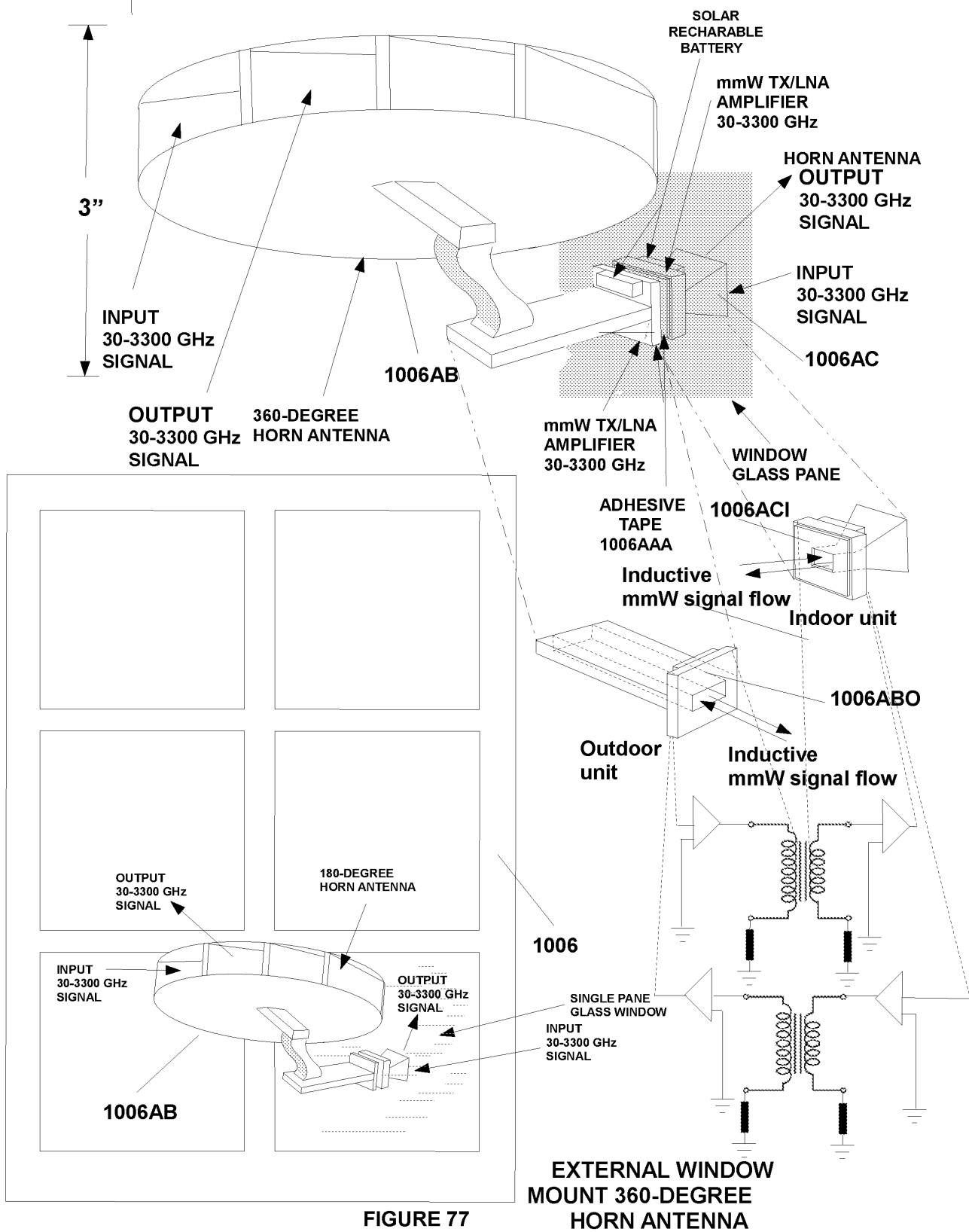
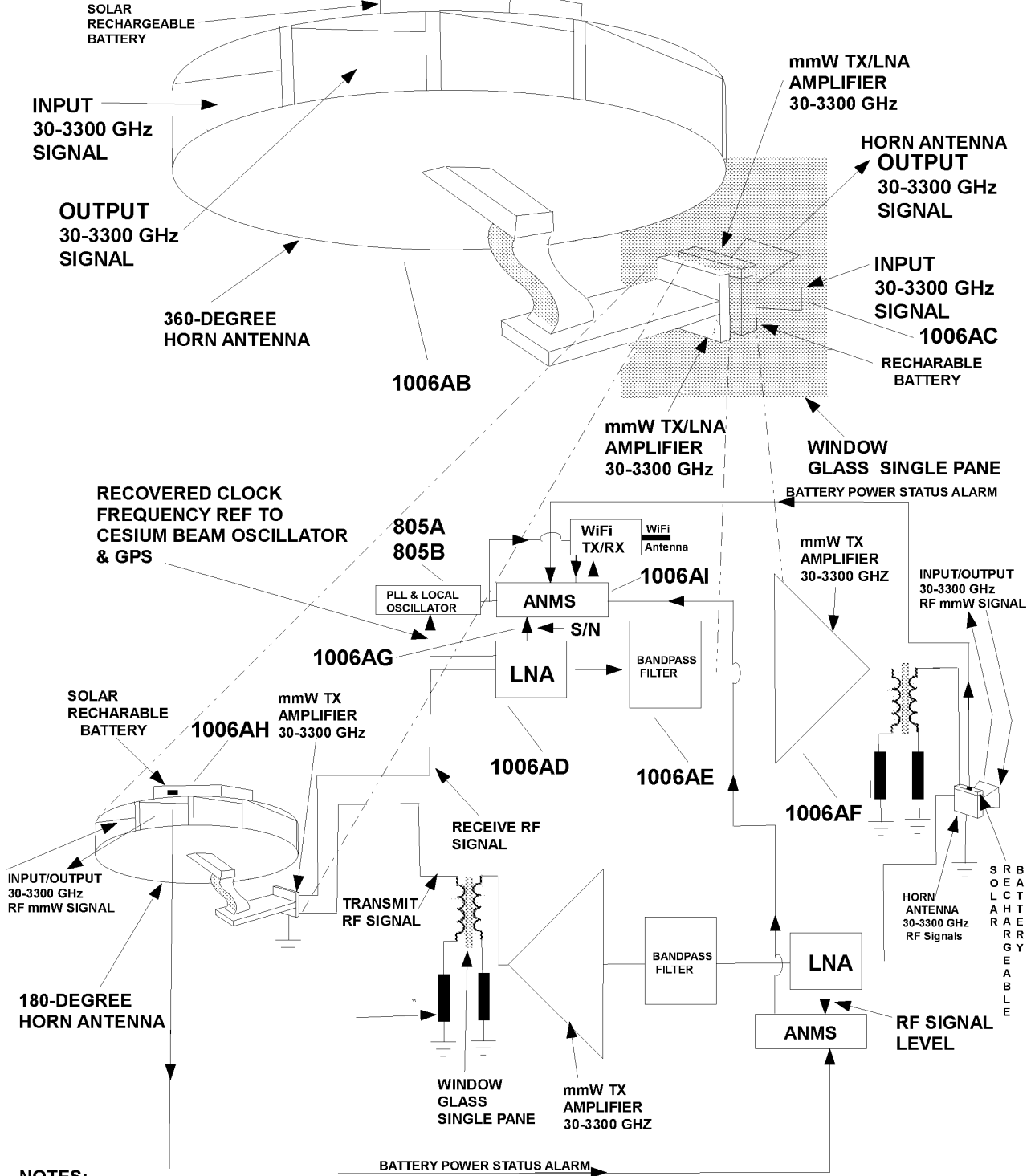


FIGURE 76



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PCT/IB2018/053710

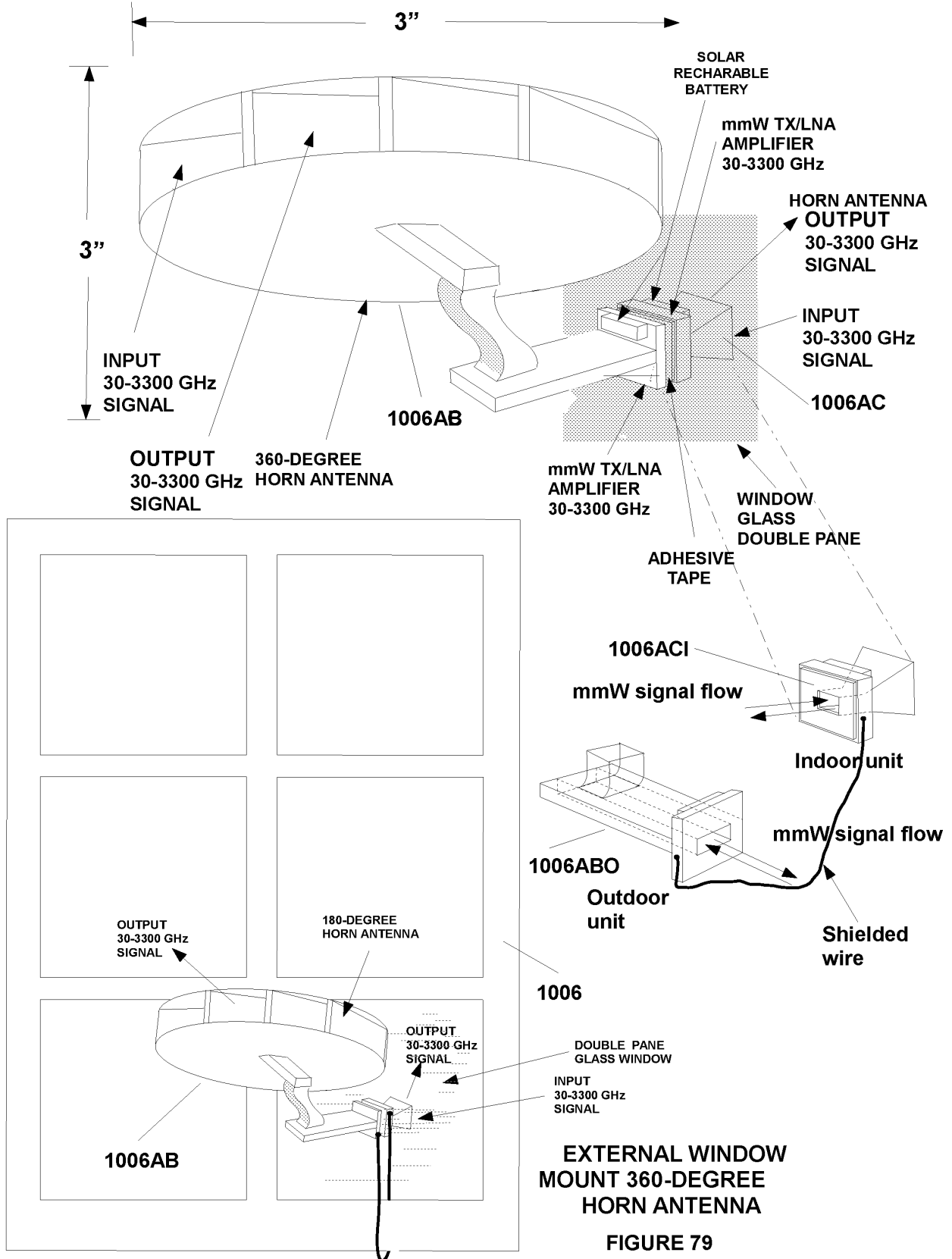


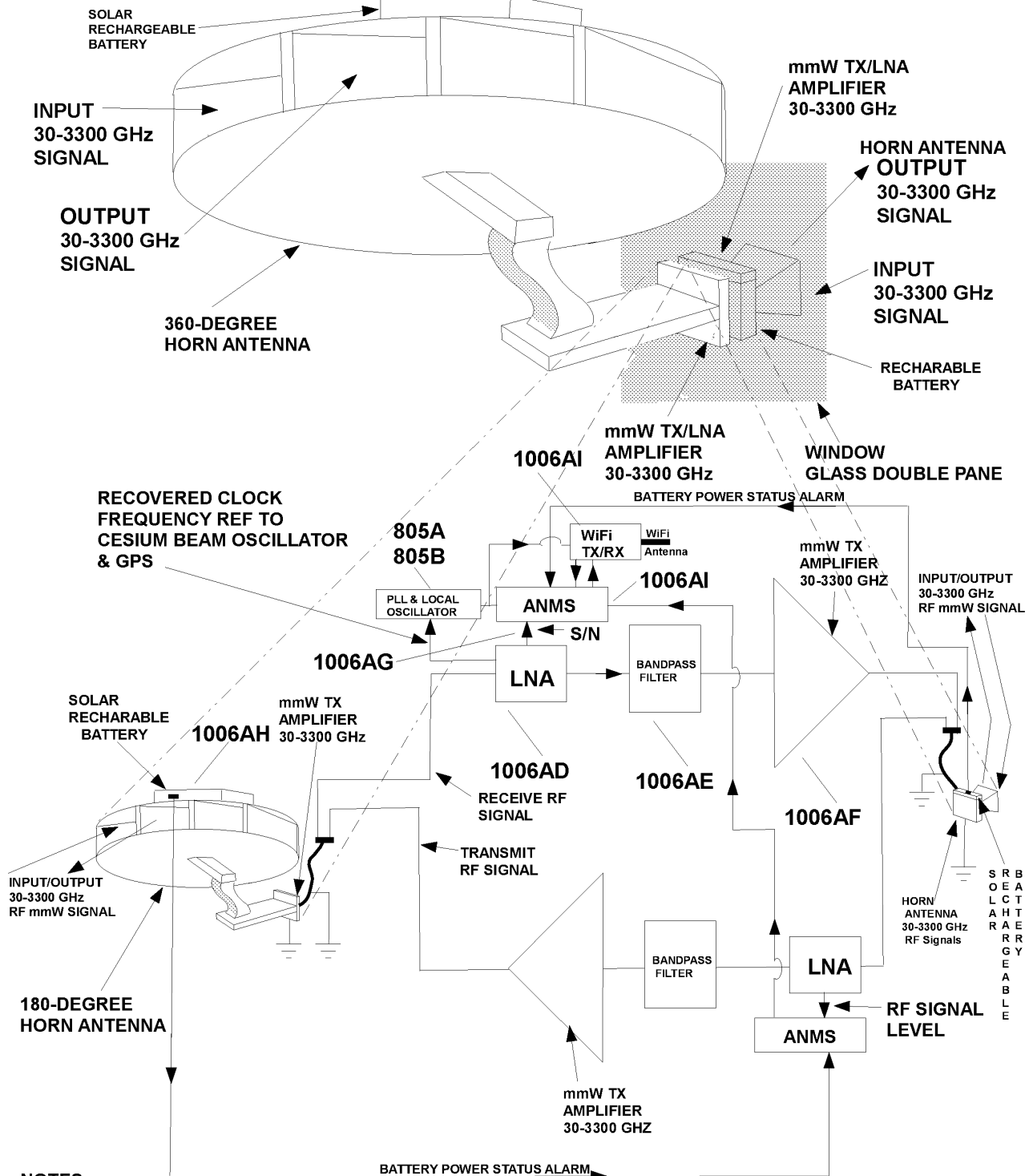
NOTES:

1. ANMS: Attobahn Network Management System
2. mmW: millimeter wave

**ATTObahn HOUSE/BUILDING
WINDOW-MOUNT 360-DEGREE HORN ANTENNA
mmW AMPLIFIER REPEATER DESIGN**

FIGURE 78





NOTES:

1. ANMS: Attobahn Network Management System
2. mmW: millimeter wave

**ATTOBAHN HOUSE/BUILDING
WINDOW-MOUNT 360-DEGREE HORN ANTENNA
mmW AMPLIFIER REPEATER DESIGN**

FIGURE 80

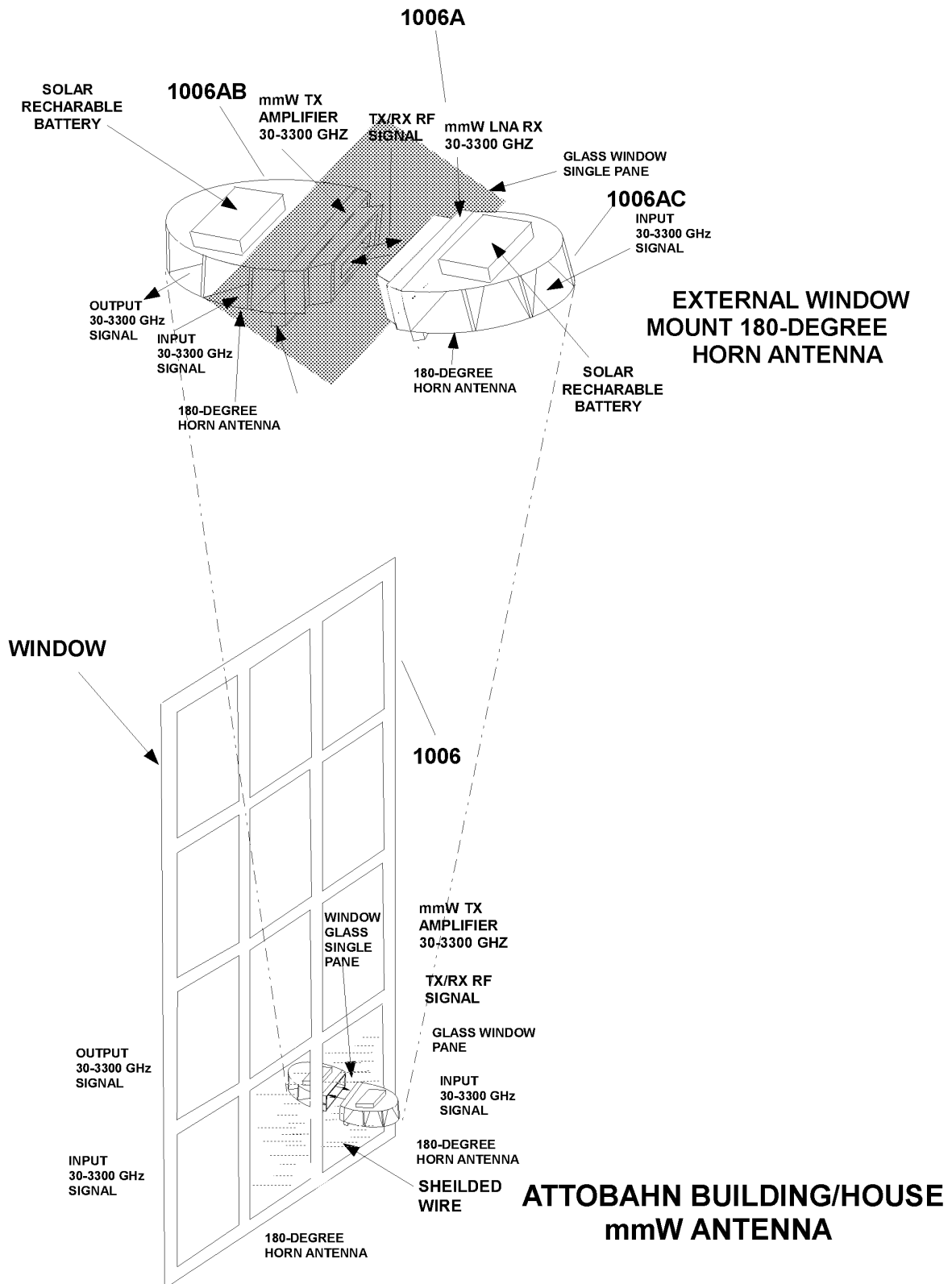
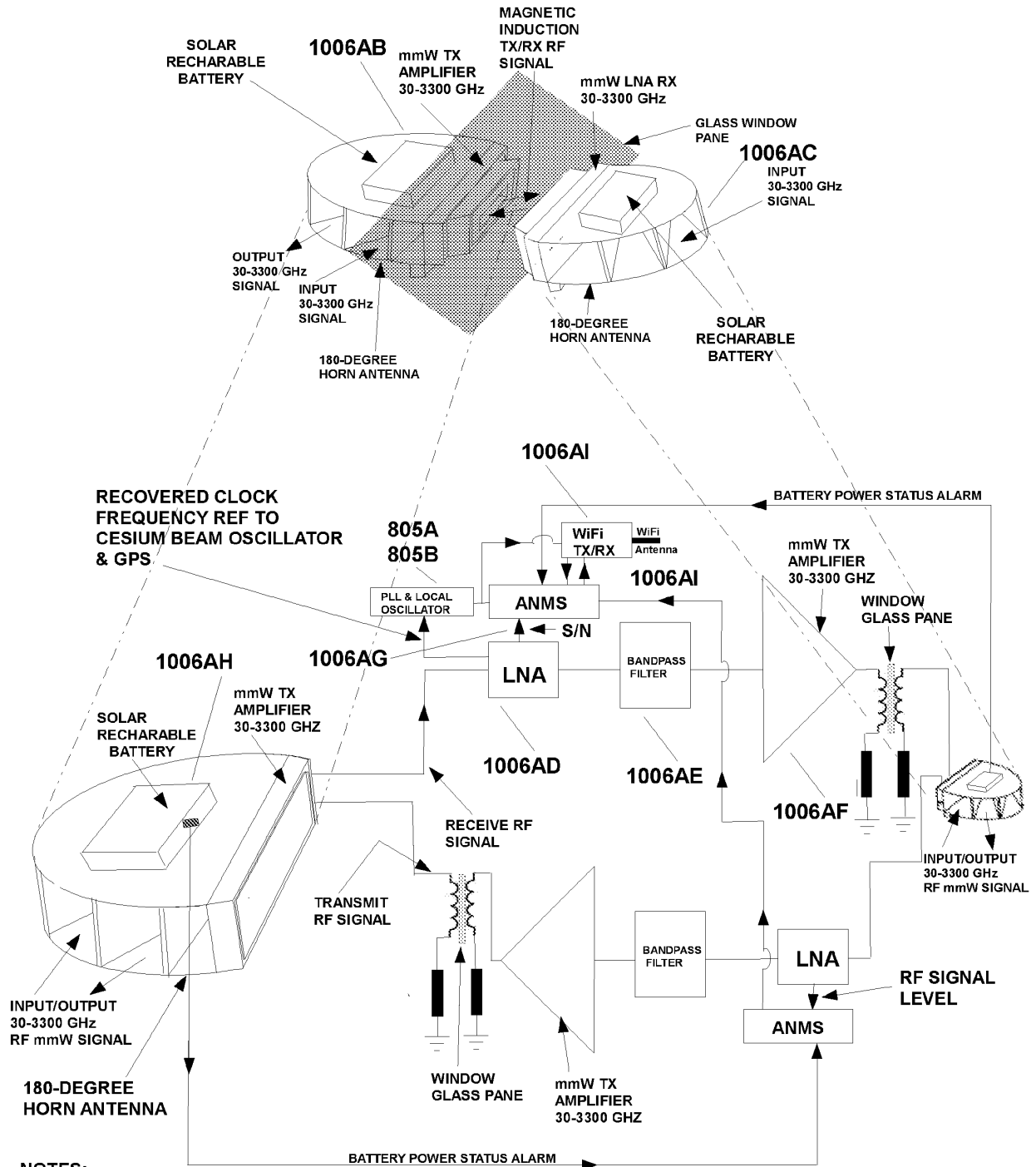


FIGURE 81



NOTES:

1. ANMS: Attobahn Network Management System
2. mmW: millimeter wave

**ATTOBAHN HOUSE/BUILDING
WINDOW-MOUNT 180-DEGREE HORN ANTENNA
mmW AMPLIFIER REPEATER DESIGN**

FIGURE 82

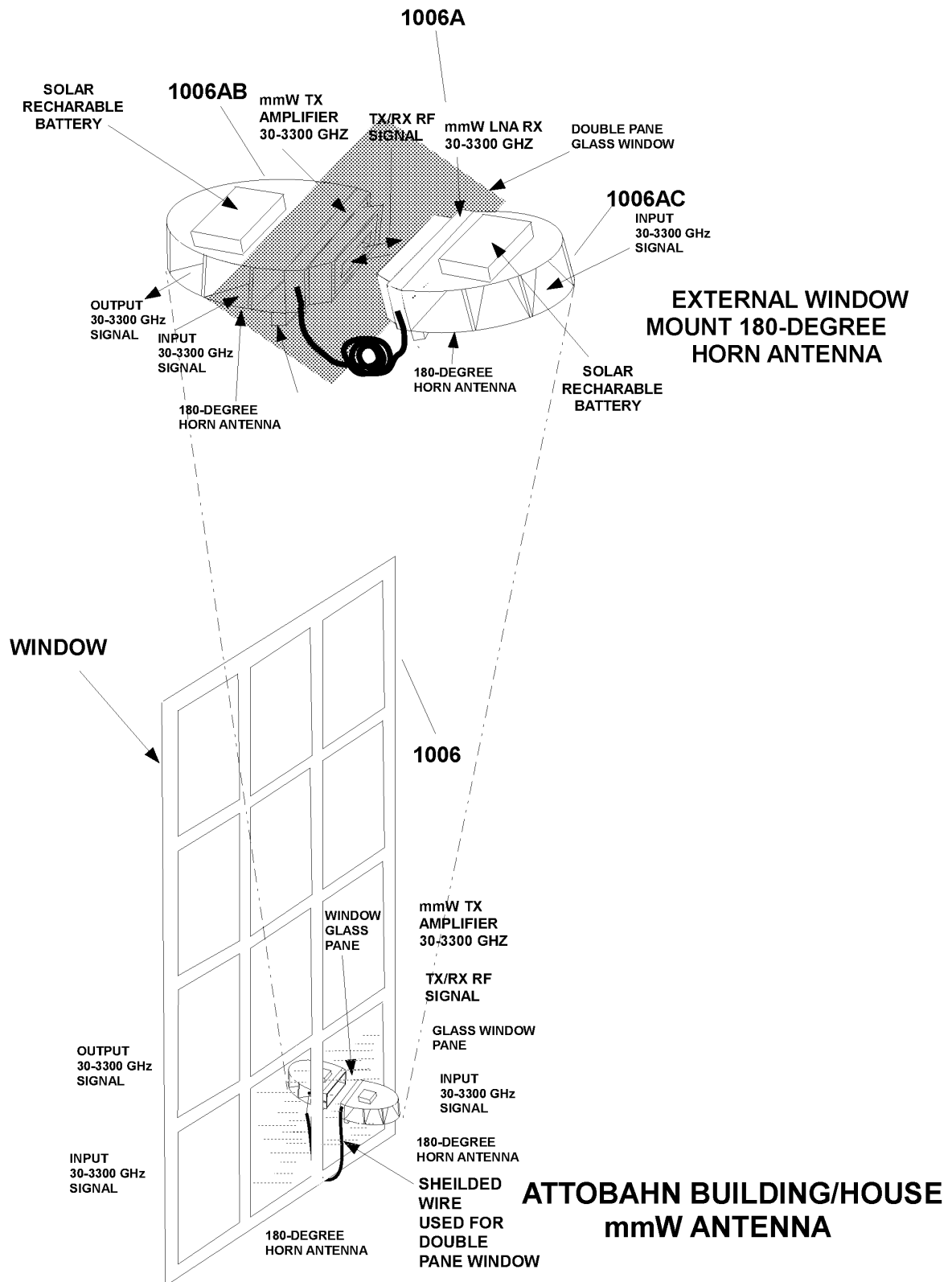
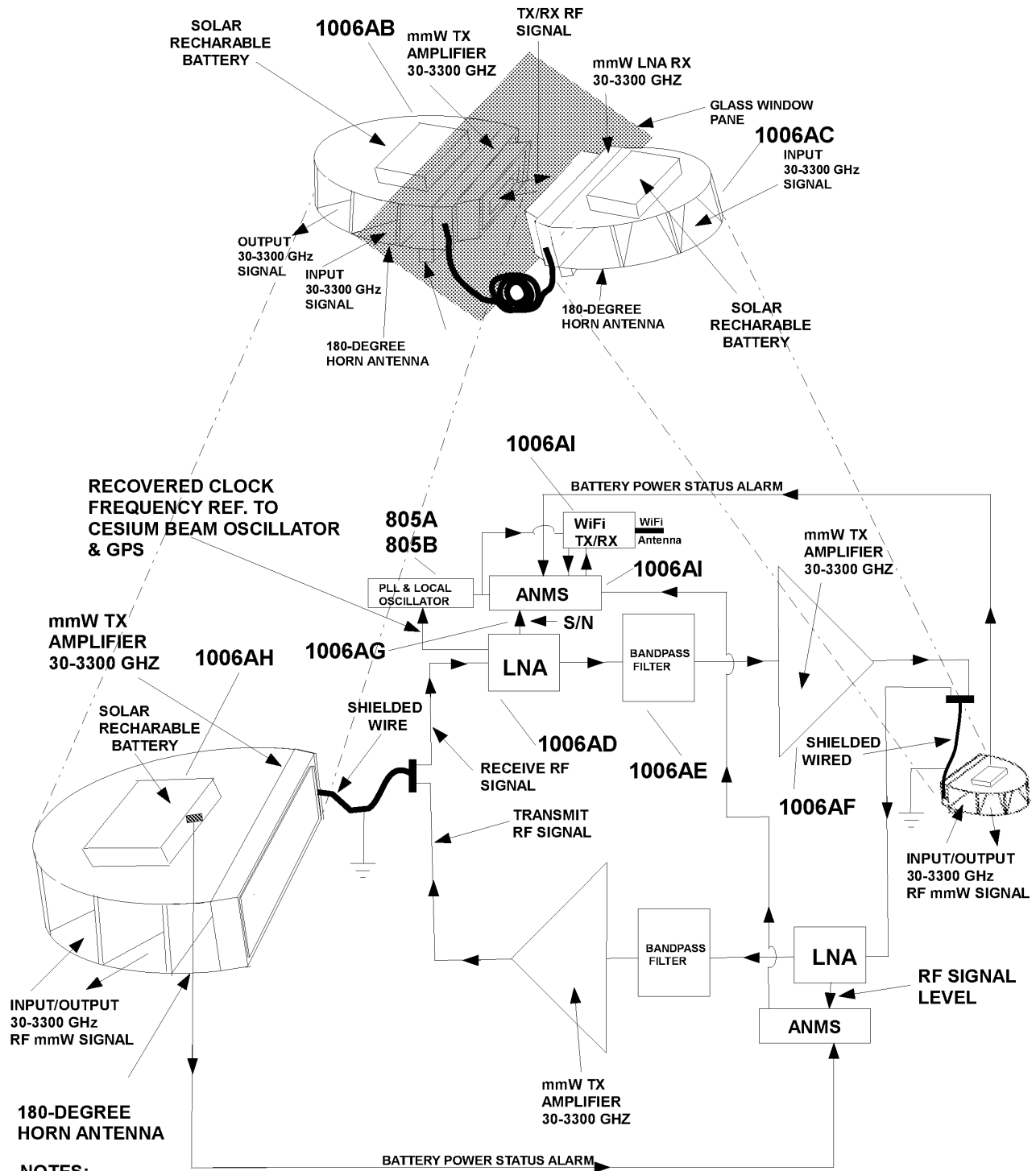


FIGURE 83



NOTES:

1. ANMS: Attobahn Network Management System
2. mmW: millimeter wave

**ATTOBAHN HOUSE/BUILDING
WINDOW-MOUNT 180-DEGREE HORN ANTENNA
mmW AMPLIFIER REPEATER DESIGN**

FIGURE 84

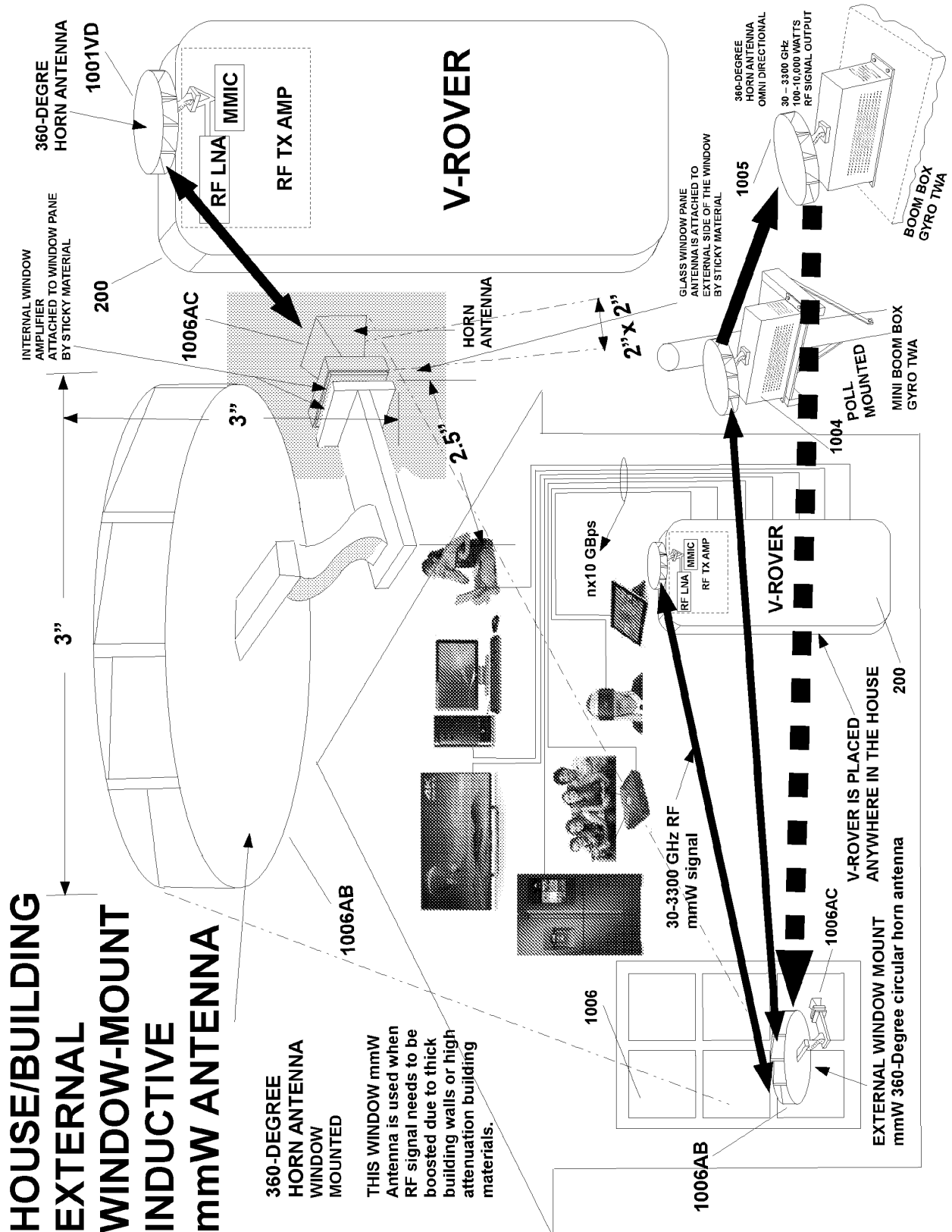


FIGURE 85

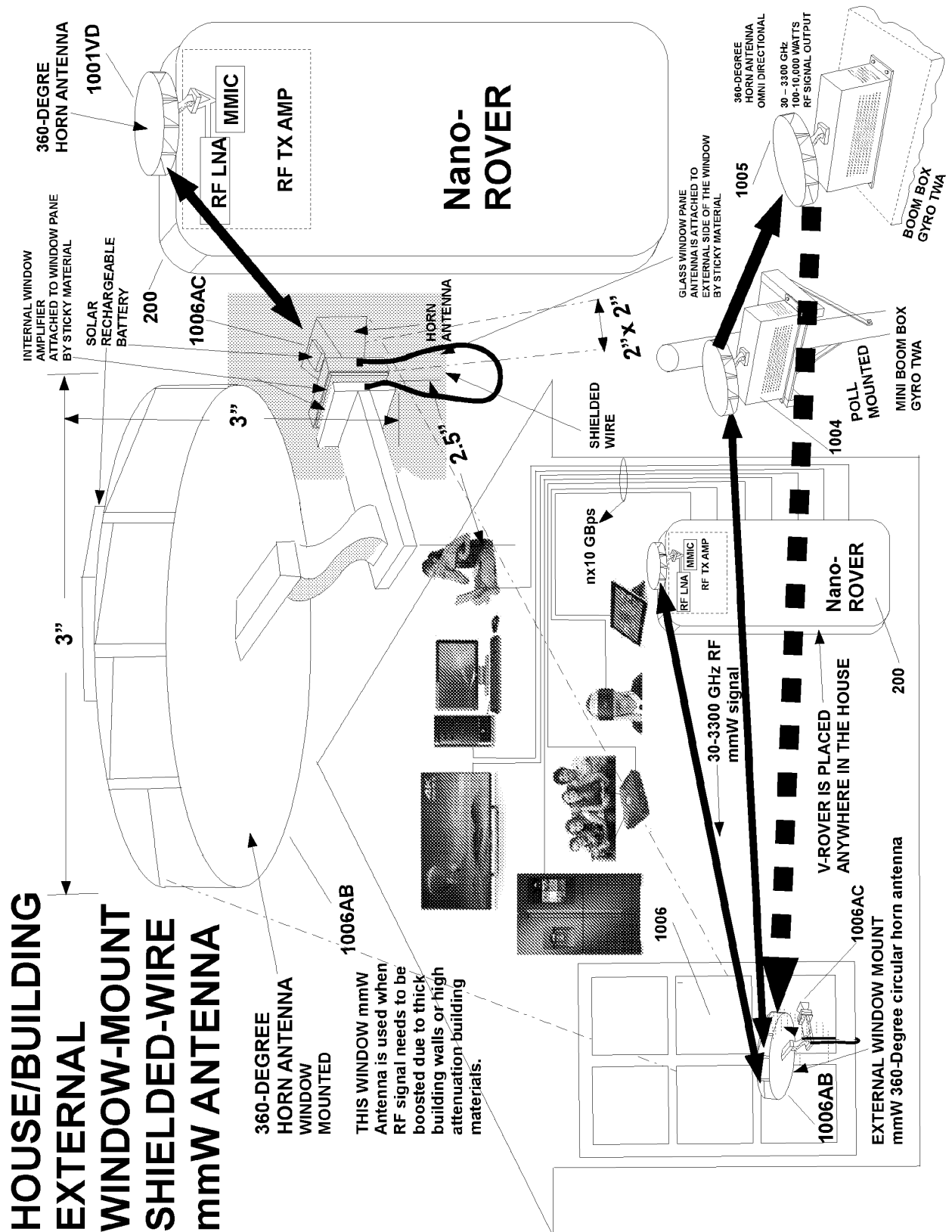


FIGURE 86

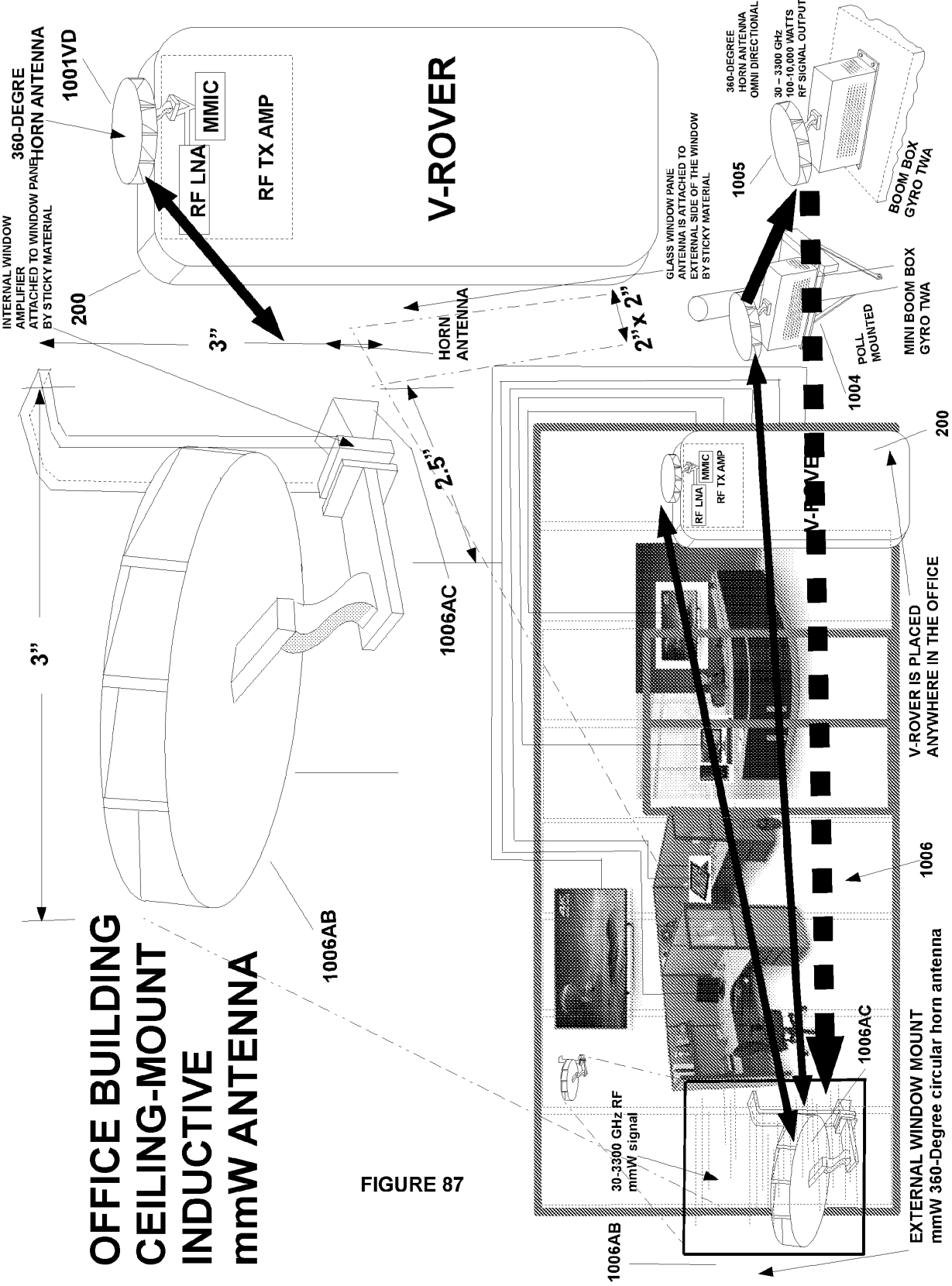


FIGURE 87

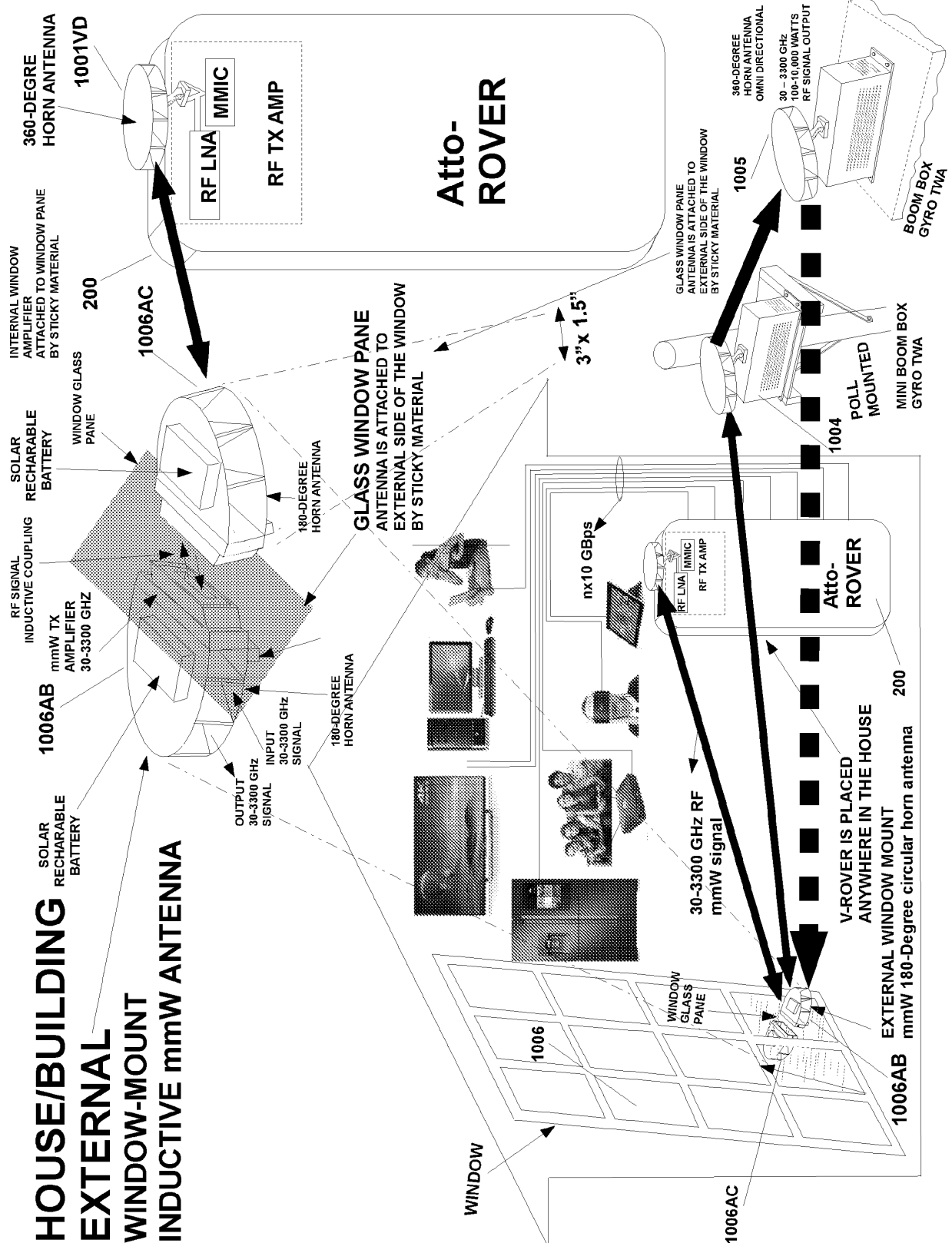


FIGURE 88

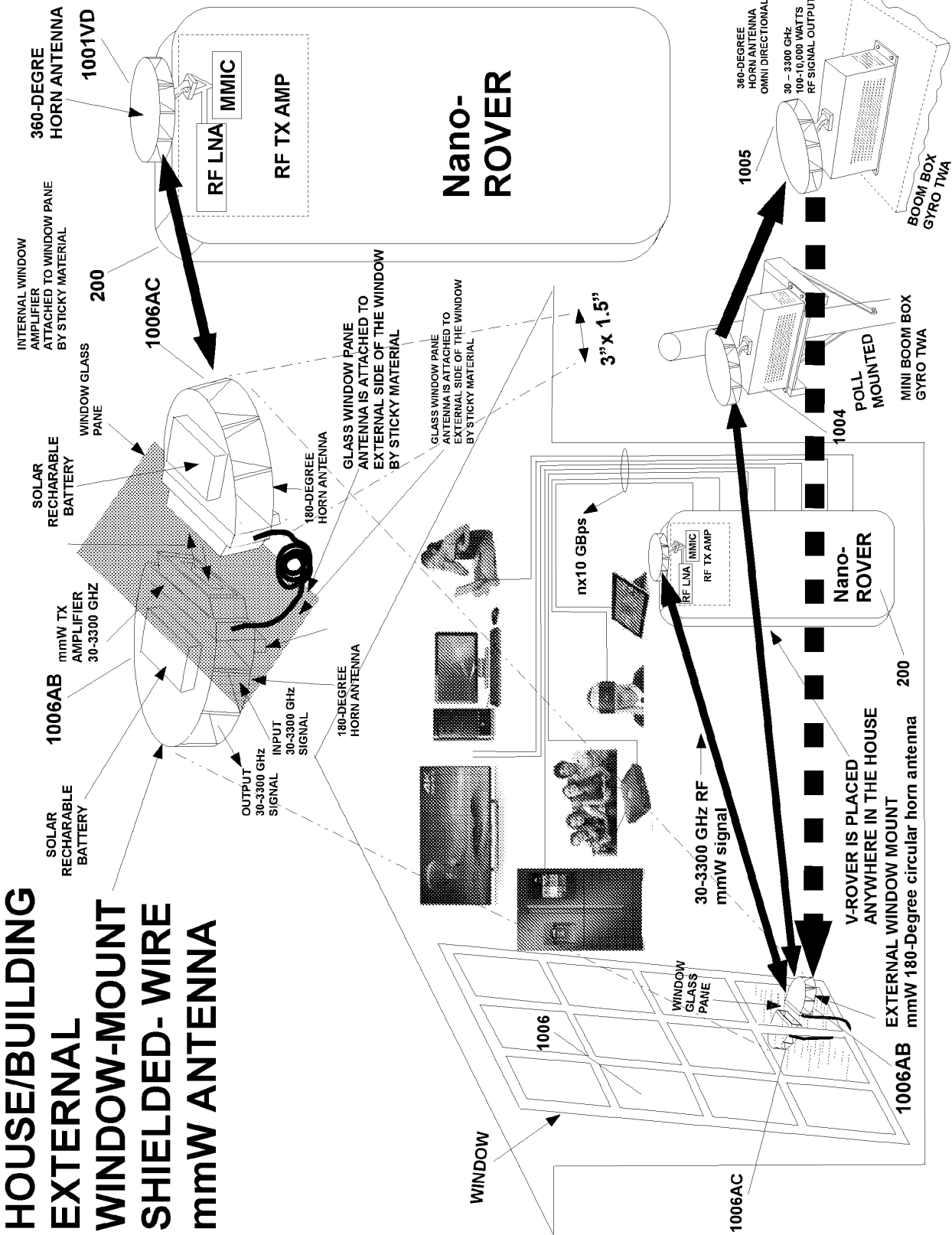
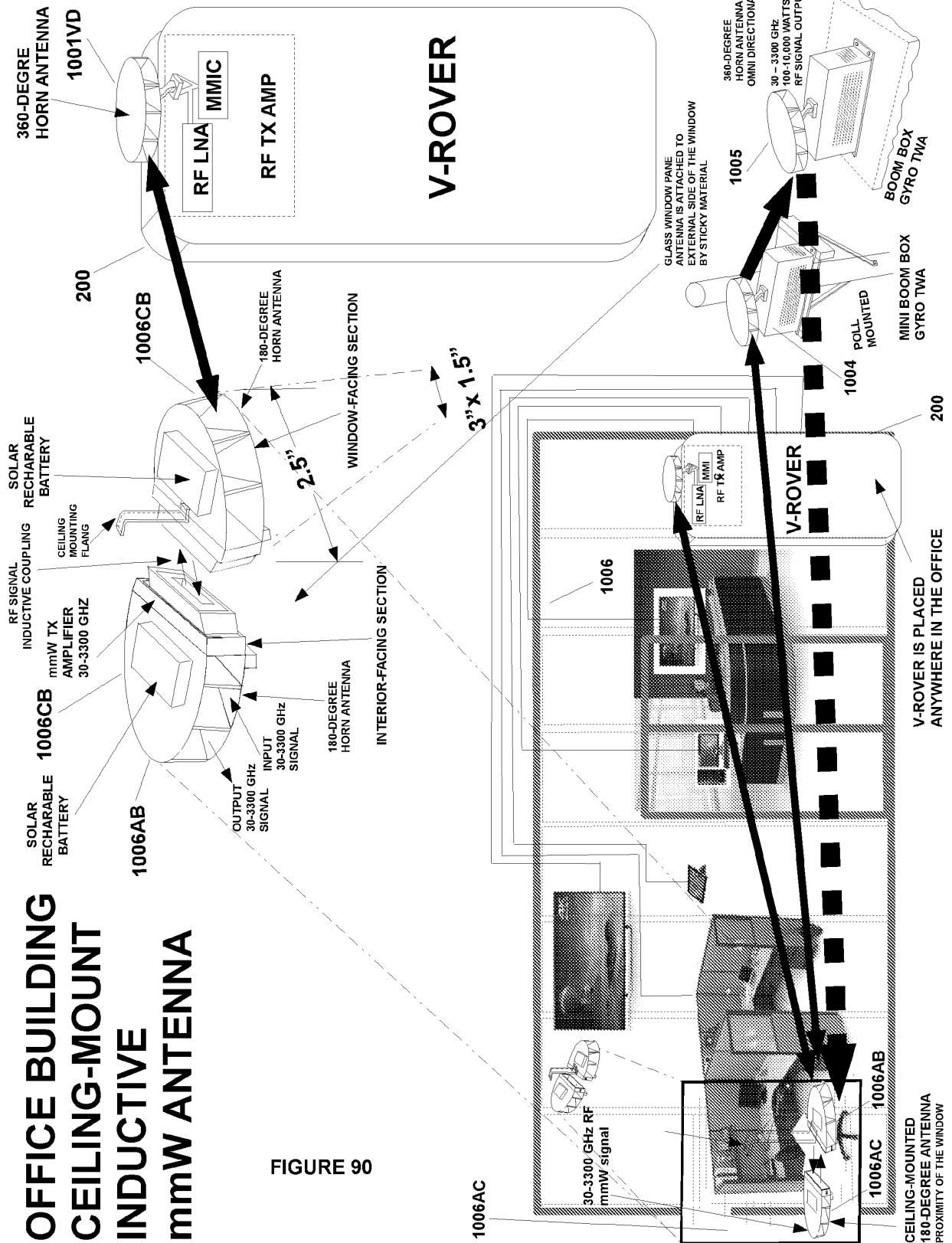


FIGURE 89



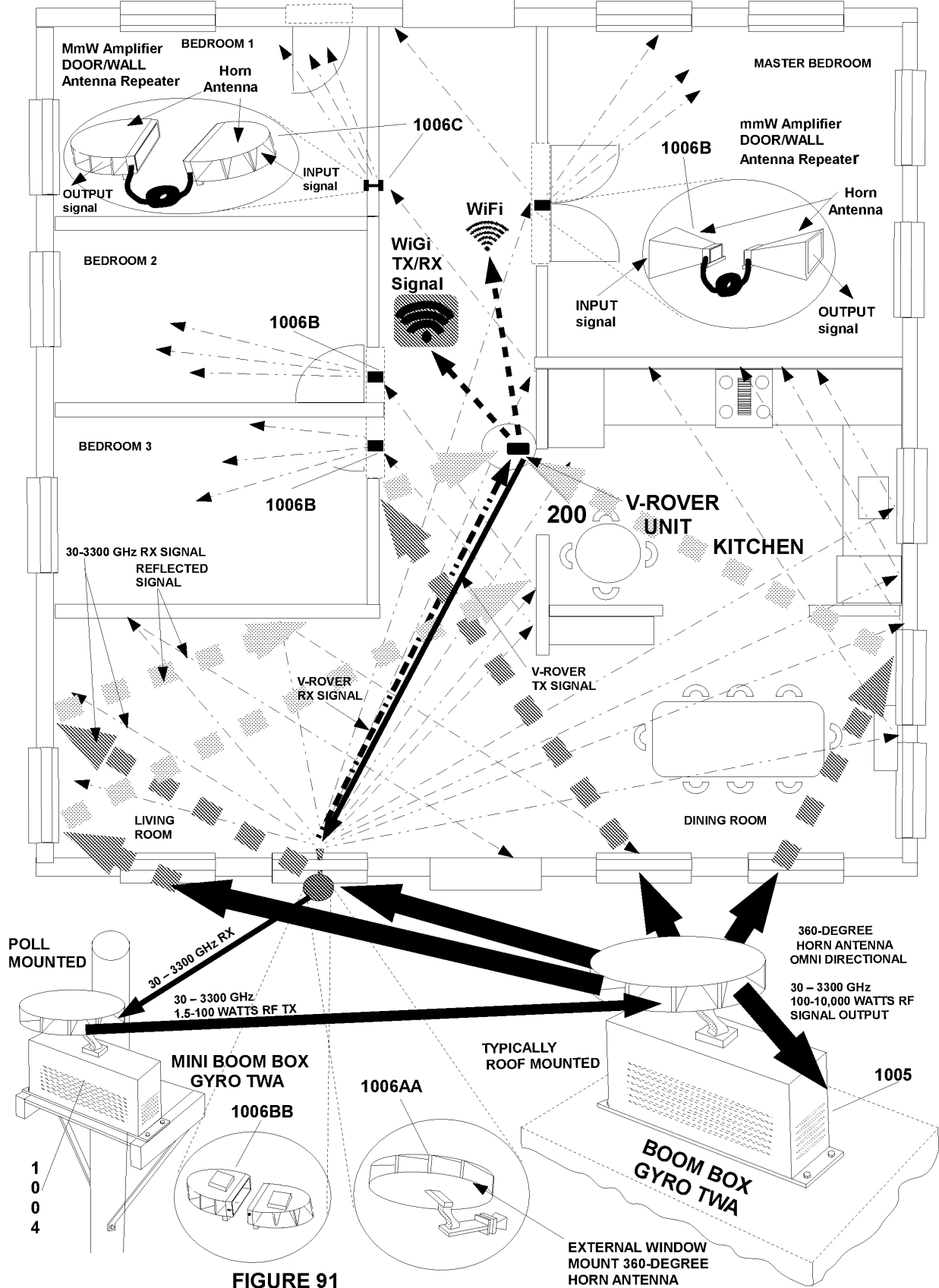


FIGURE 91

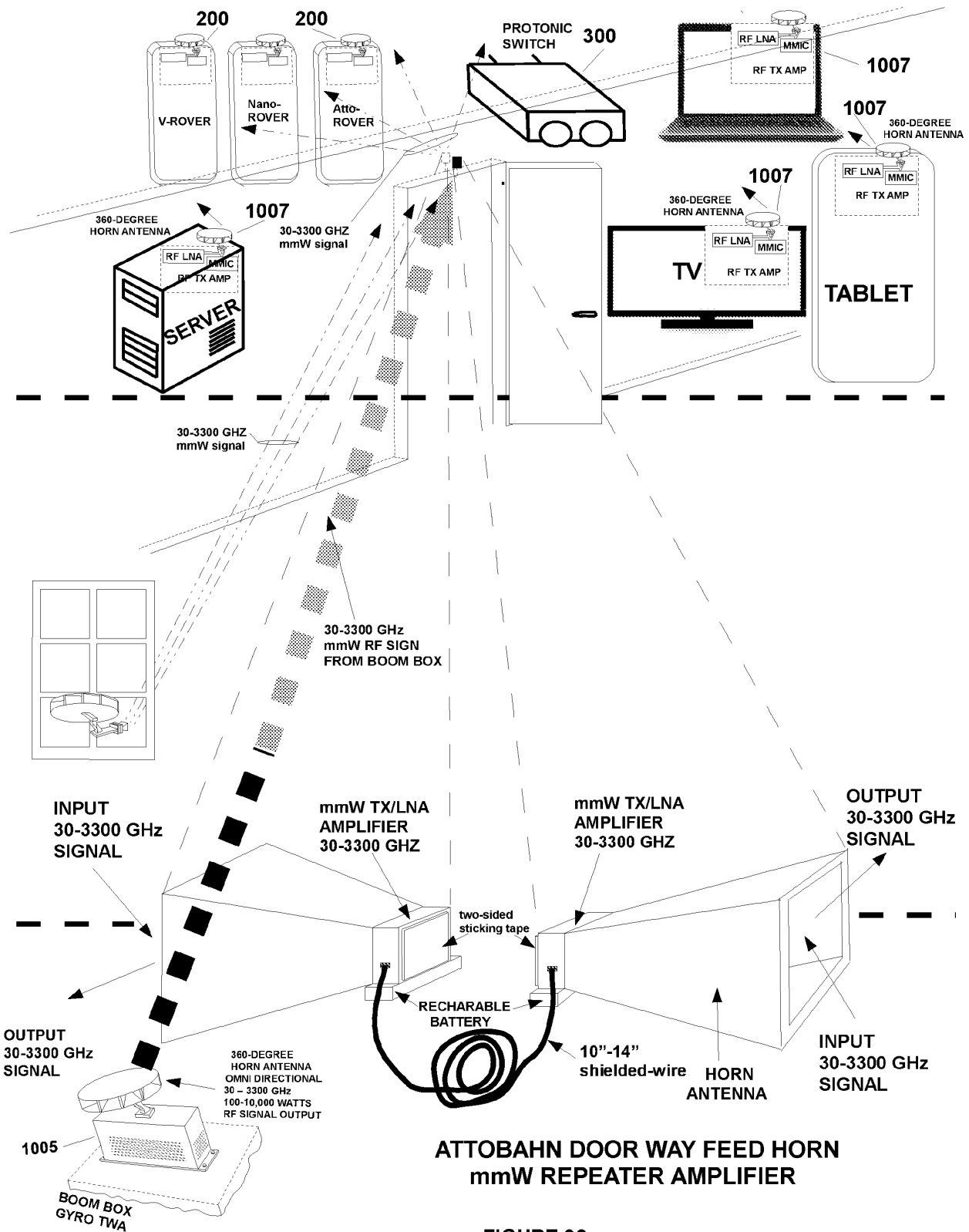
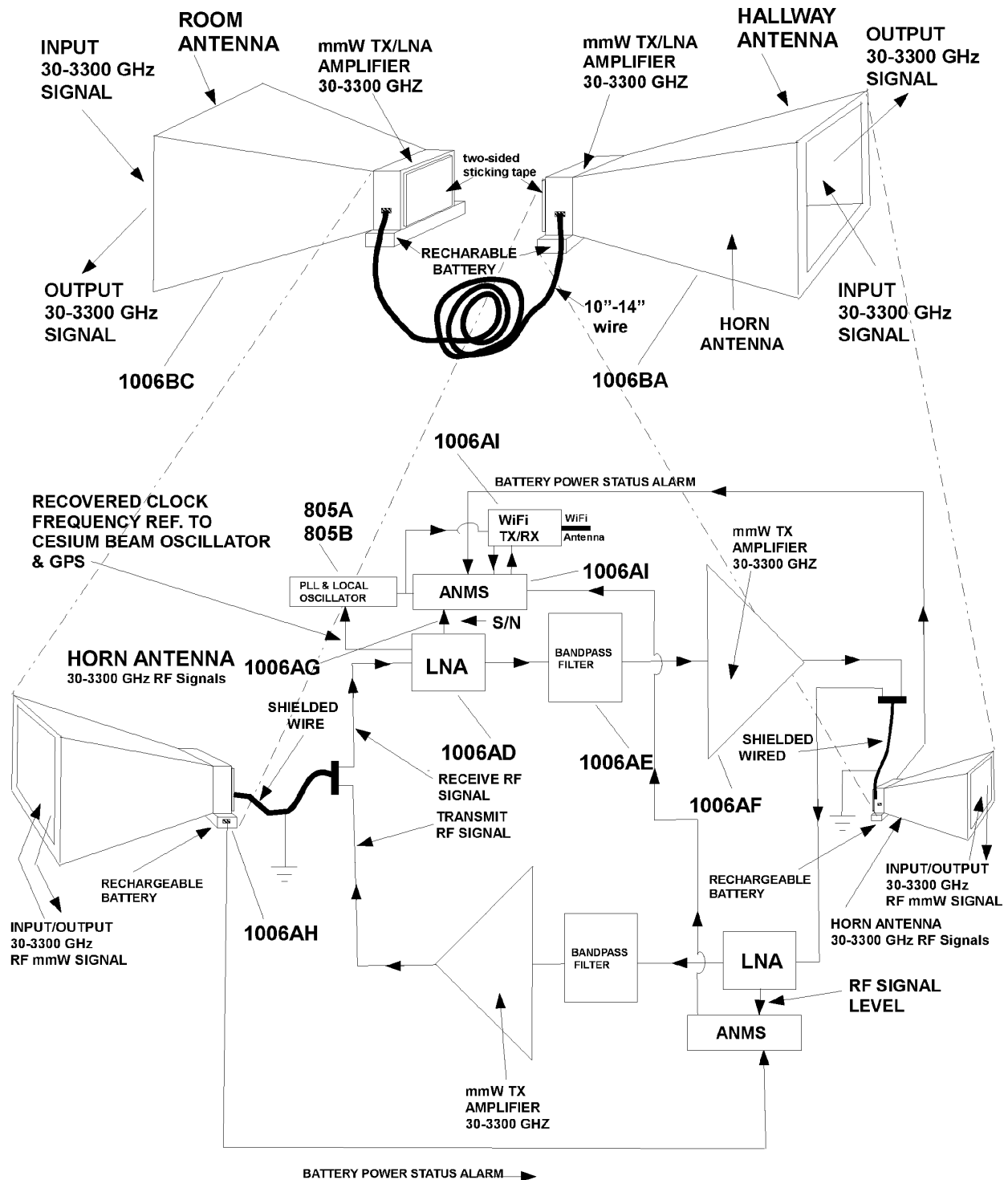


FIGURE 92



ATTOBAHN WALL mmW AMPLIFIER REPEATER DESIGN

FIGURE 93

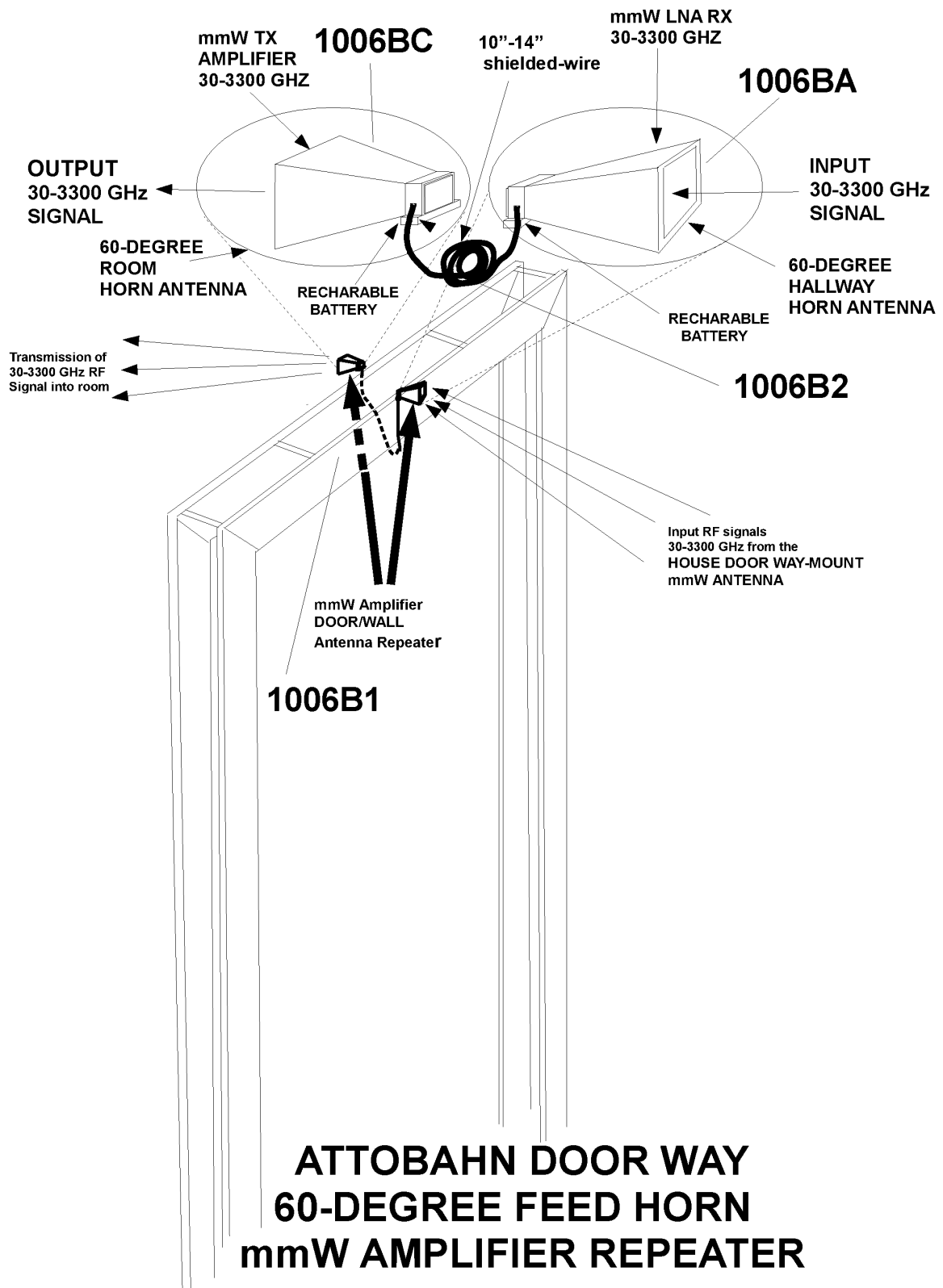


FIGURE 94

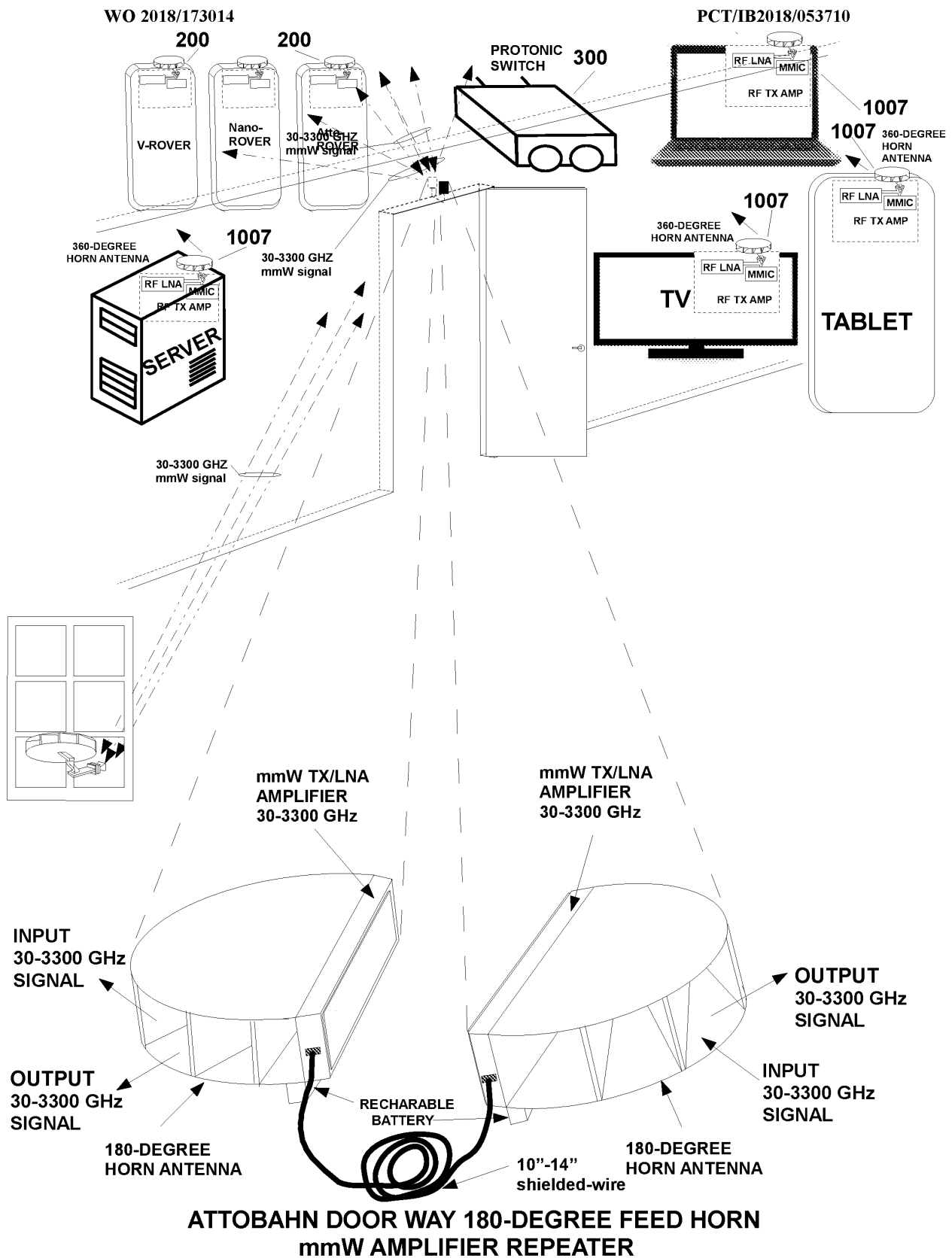


FIGURE 95

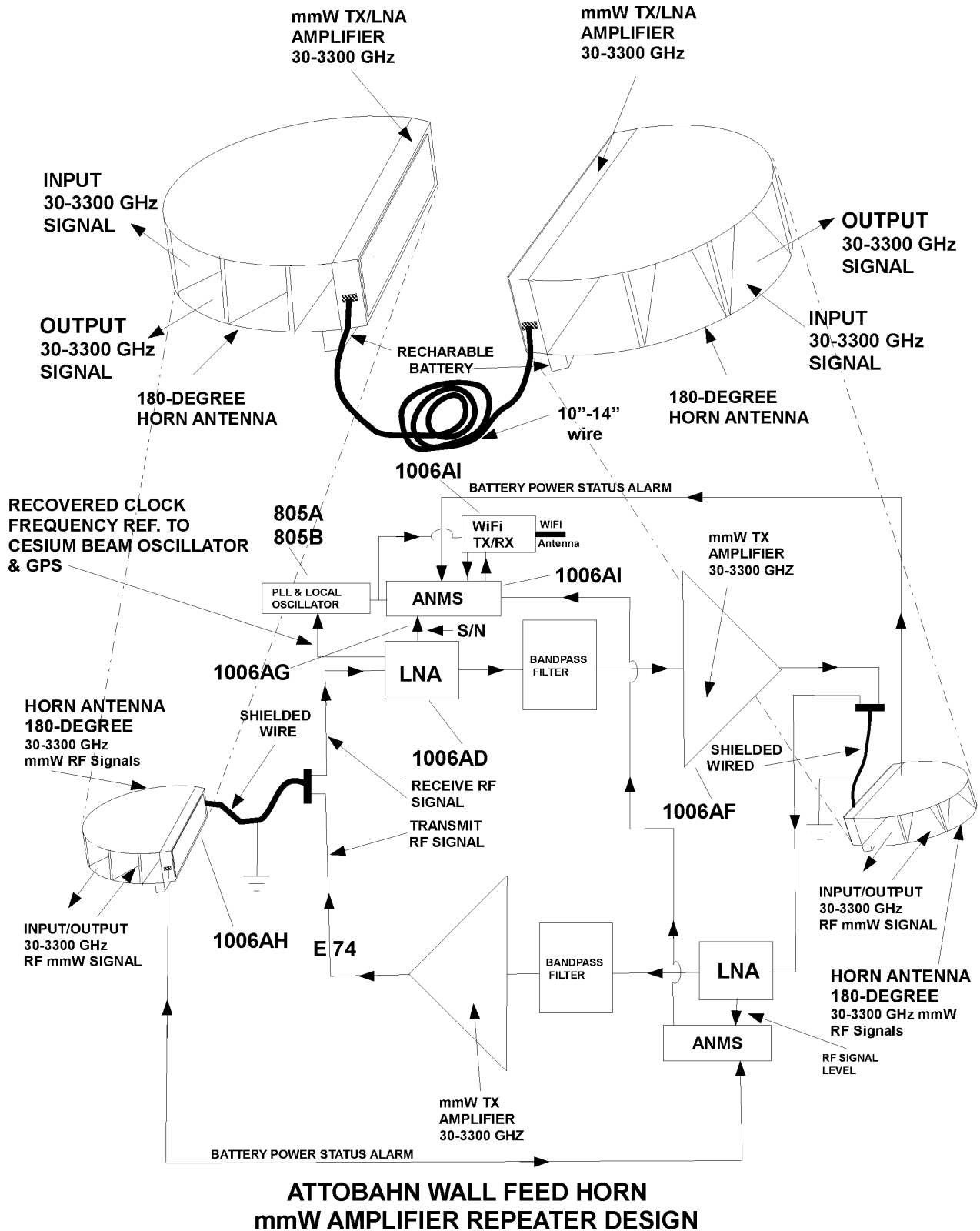


FIGURE 96

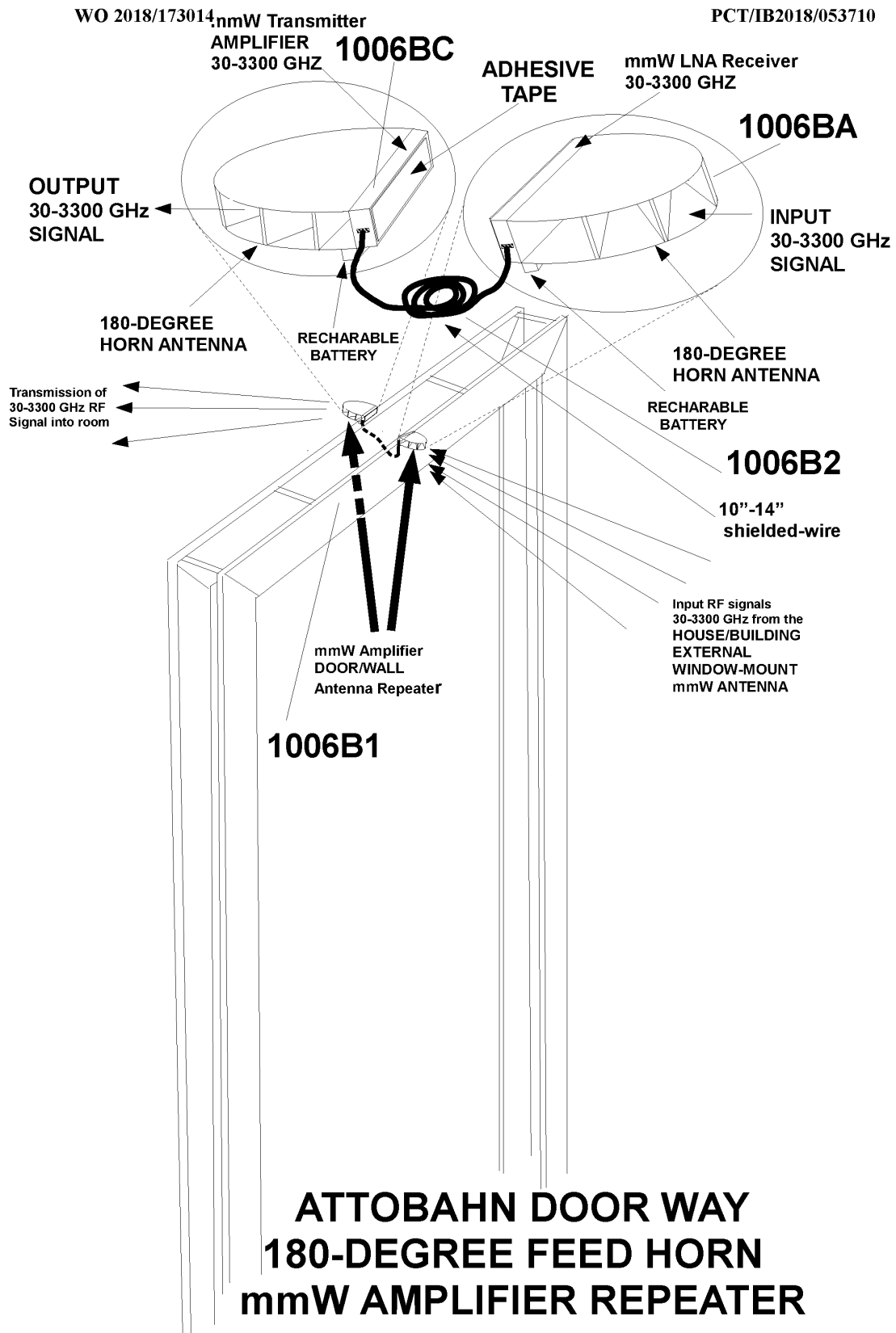


FIGURE 97

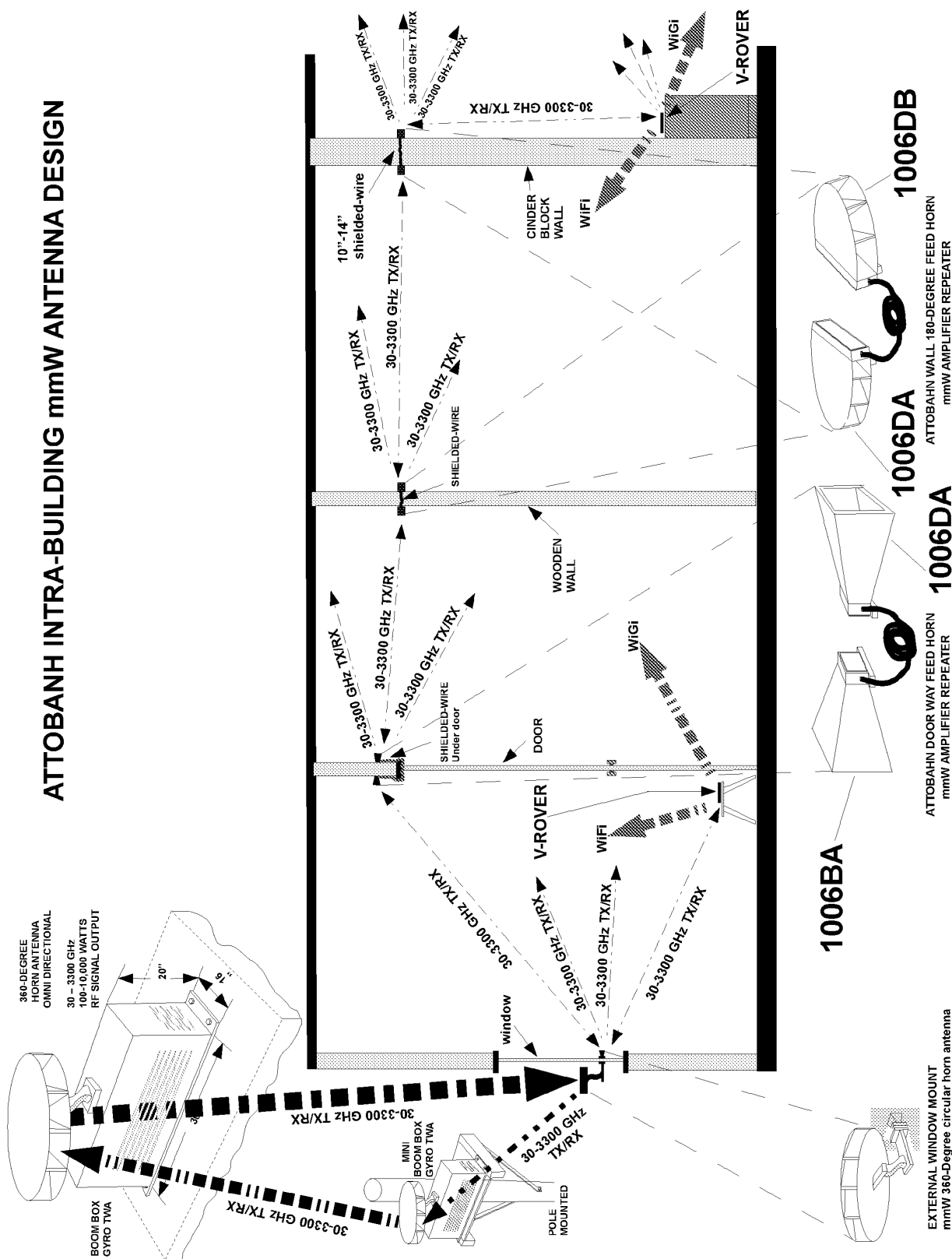
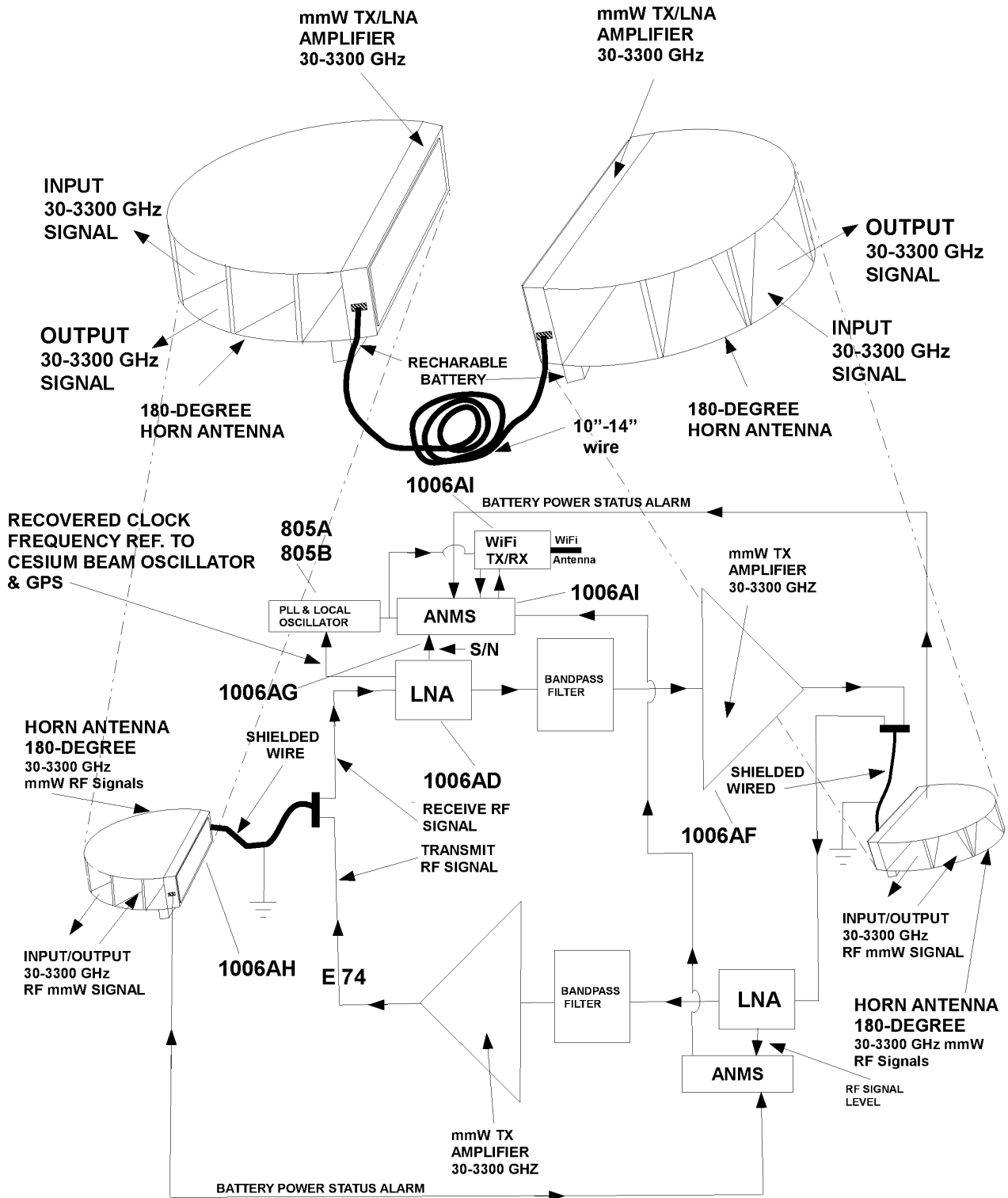
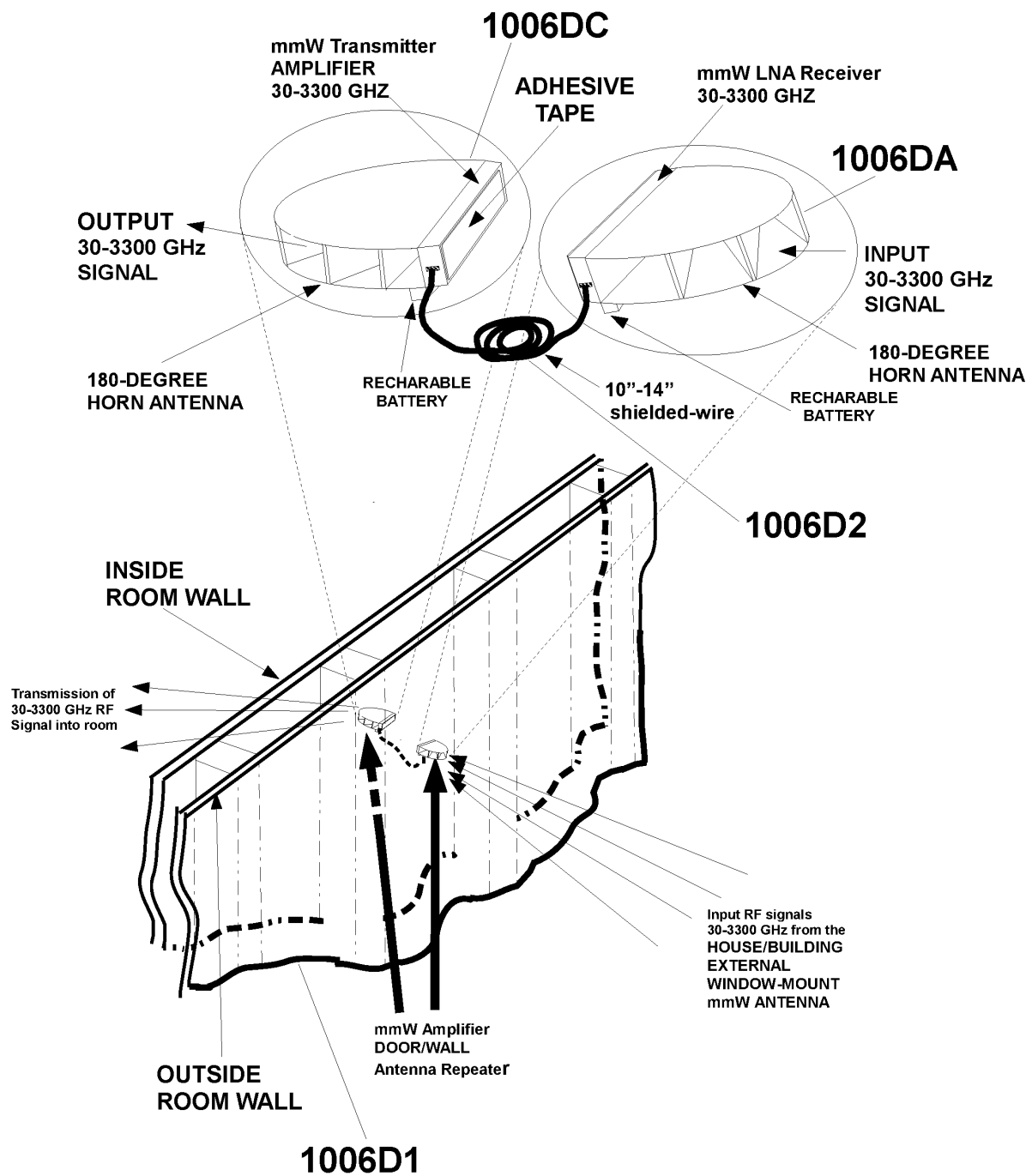


FIGURE 98



ATTOBAHN WALL FEED HORN mmW AMPLIFIER REPEATER DESIGN

FIGURE 99



ATTOBAHN WALL 180-DEGREE FEED HORN mmW AMPLIFIER REPEATER

FIGURE 100

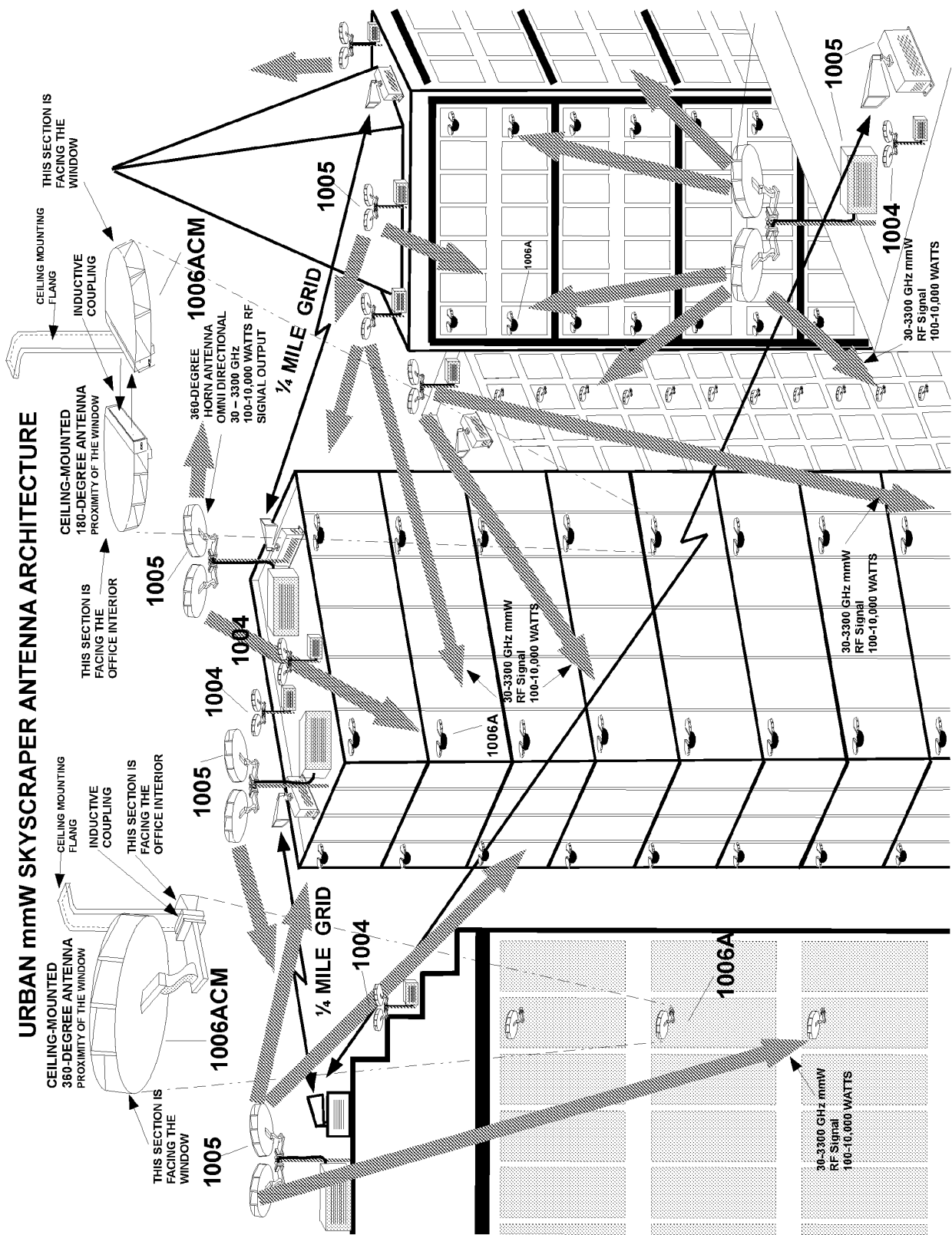
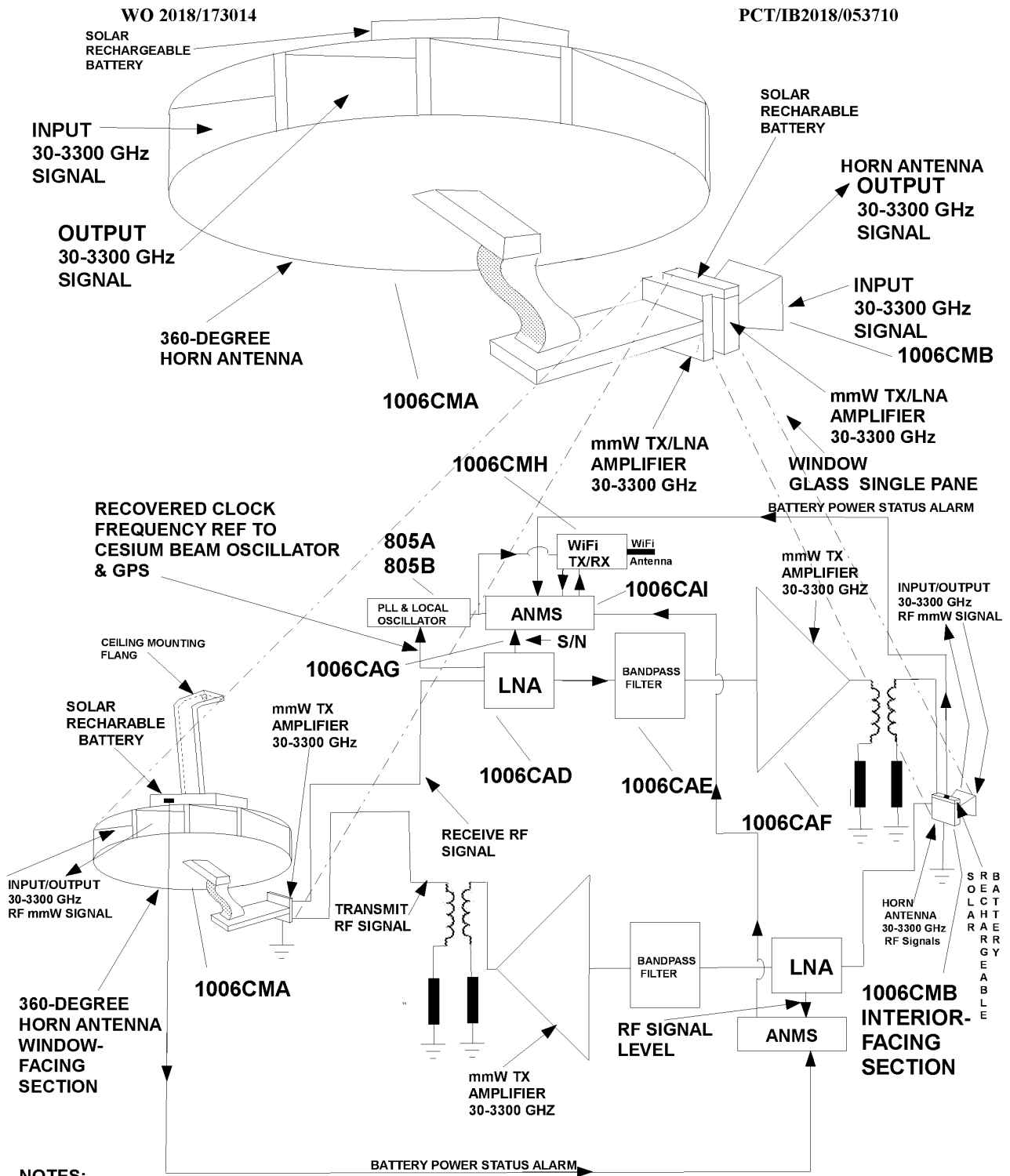
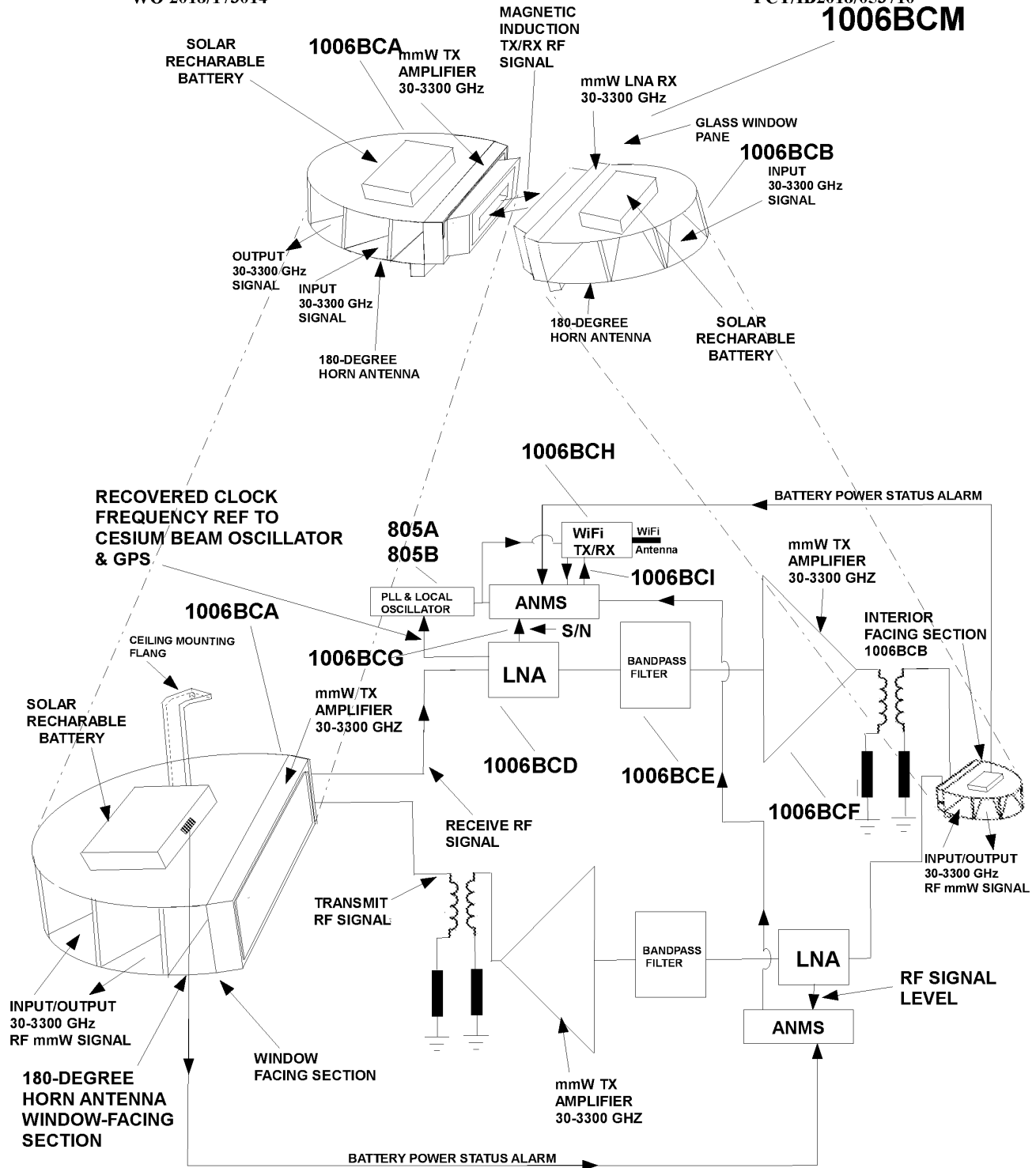


FIGURE 101



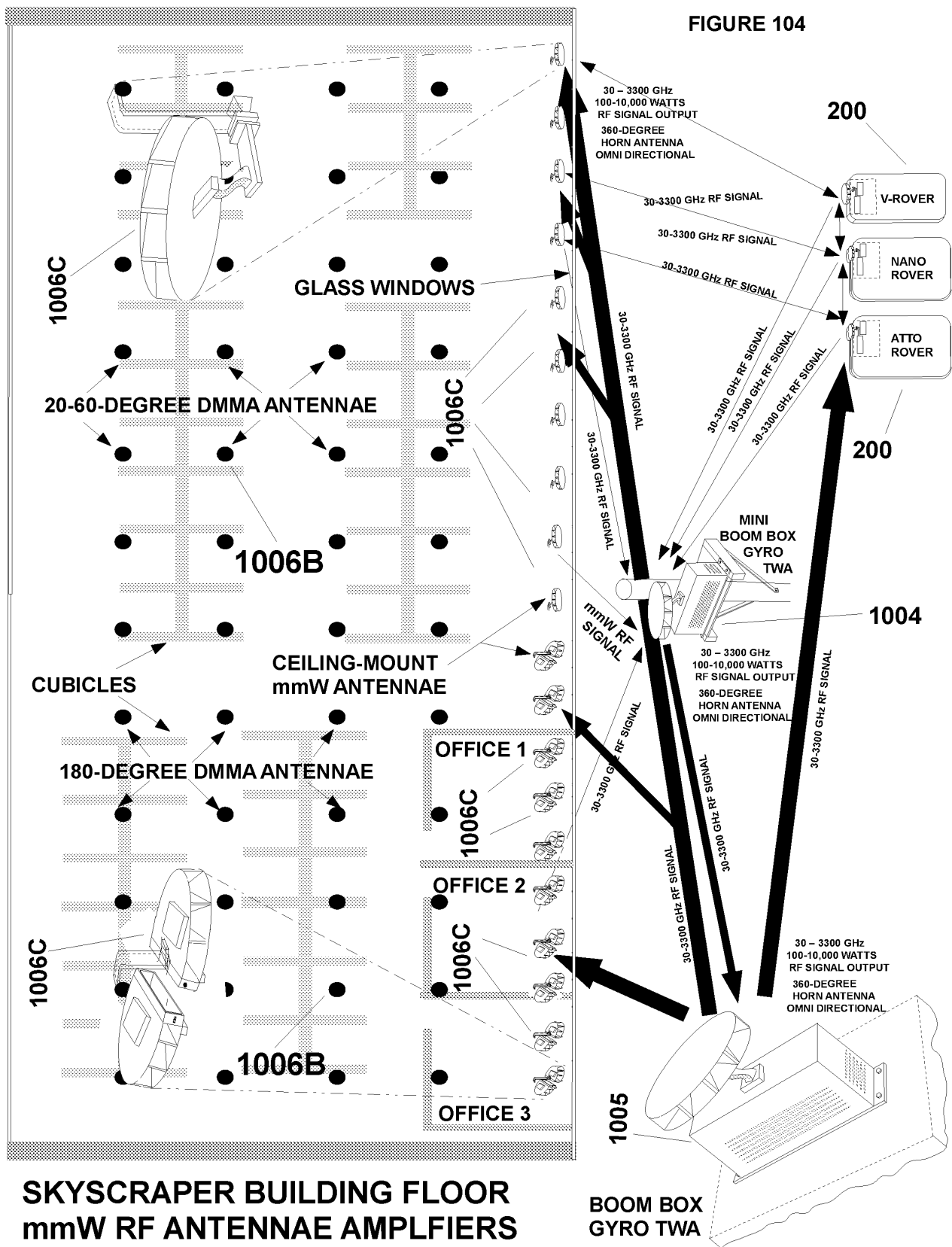
**ATTObahn HOUSE/BUILDING
WINDOW-MOUNT 360-DEGREE HORN ANTENNA
mmW AMPLIFIER REPEATER DESIGN**

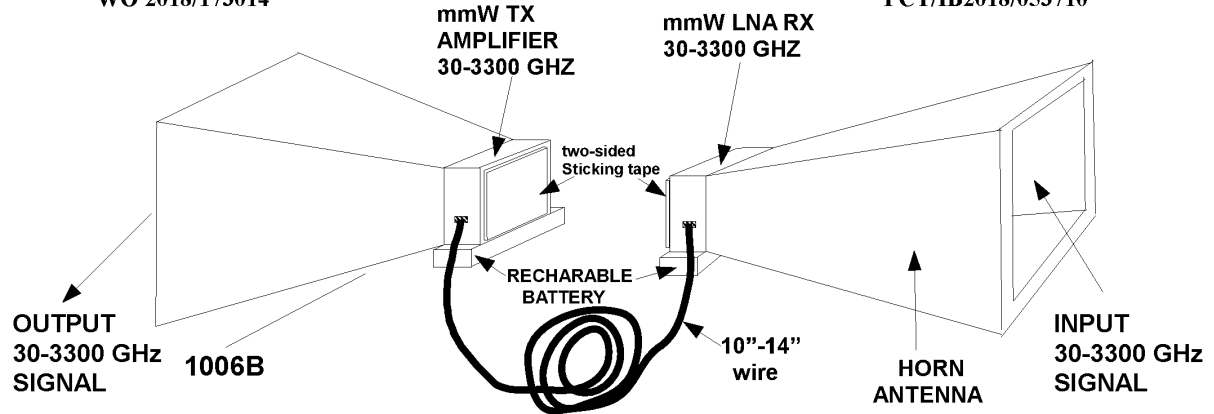
FIGURE 102

1006BCM

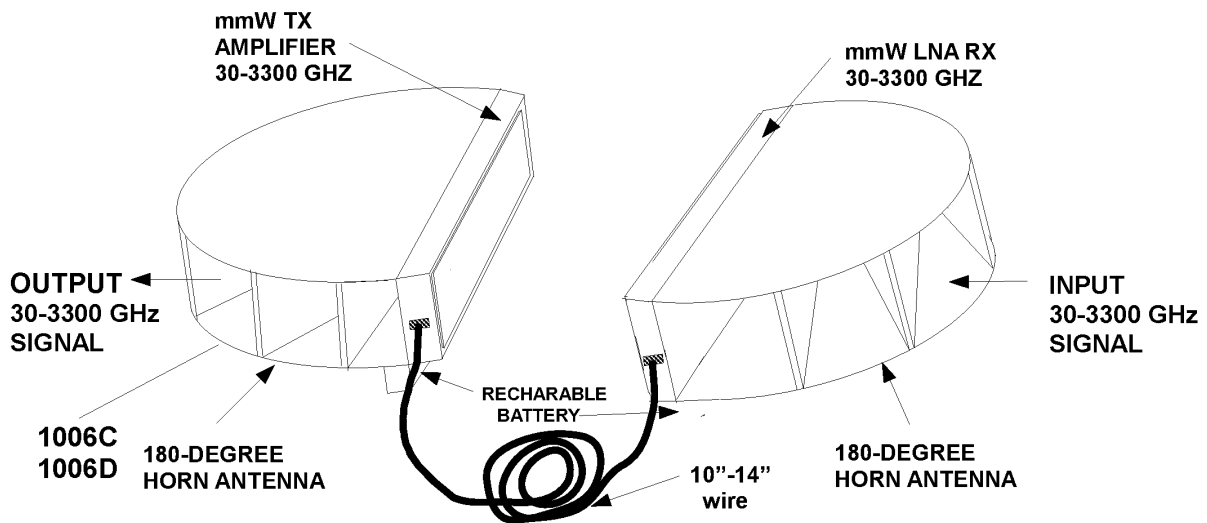
**ATTOBAHN HOUSE/BUILDING
WINDOW-MOUNT 180-DEGREE HORN ANTENNA
mmW AMPLIFIER REPEATER DESIGN**

FIGURE 103





ATTOBAHN DOOR WAY/WALL 60-DEGREE FEED HORN mmW AMPLIFIER REPEATER



ATTOBAHN DOOR WAY/WALL 180-DEGREE FEED HORN mmW AMPLIFIER REPEATER

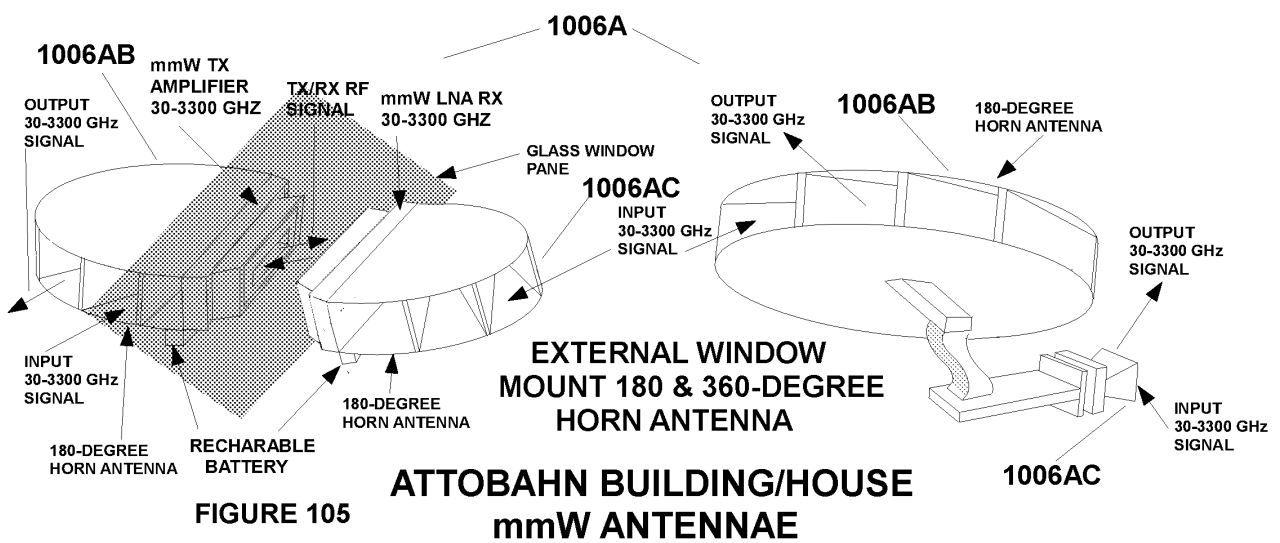
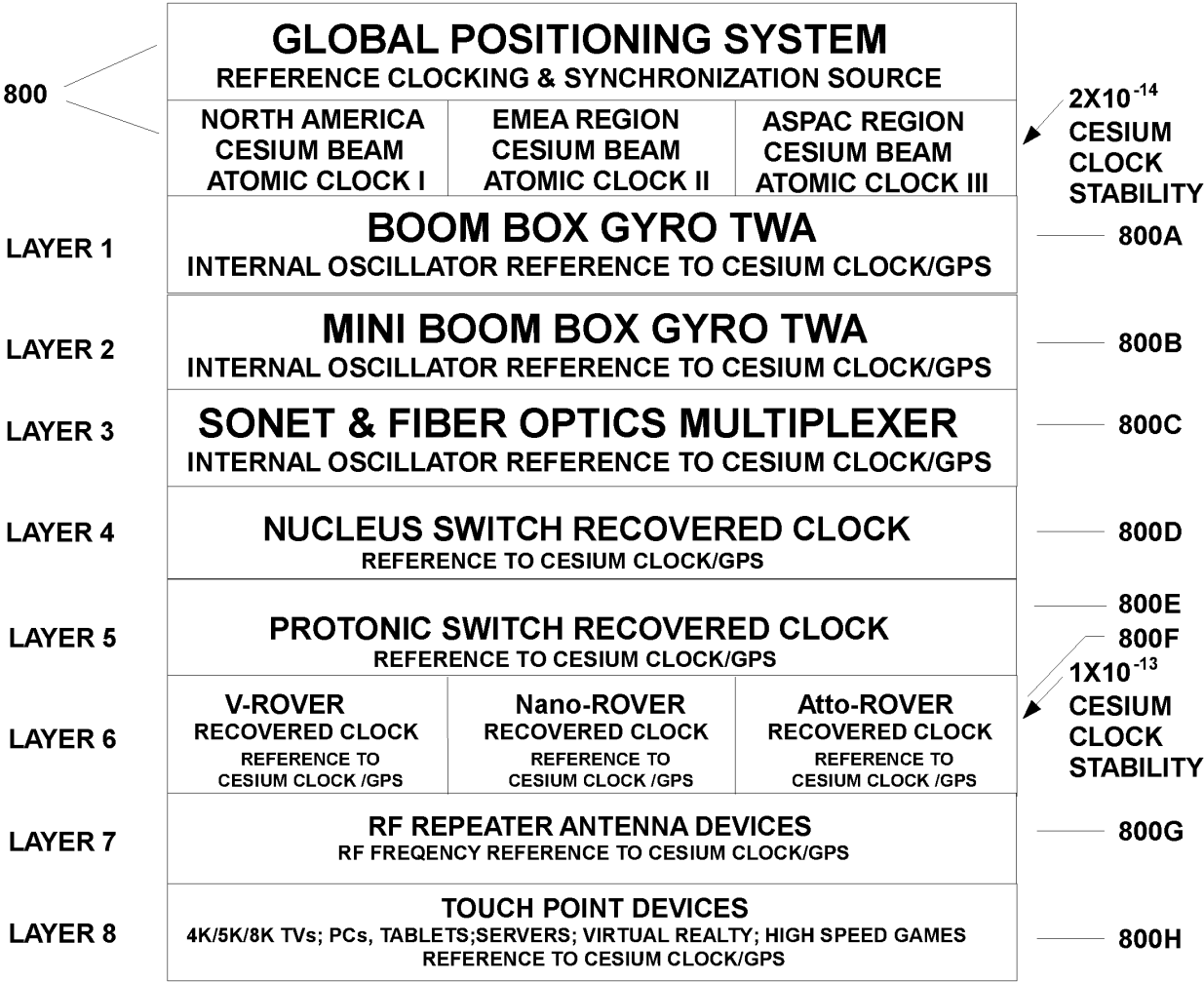


FIGURE 105

ATTOBAHN BUILDING/HOUSE mmW ANTENNAE



ATTOBAHN CLOCKING & TIMING STANDARD SYNCHRONIZATION ARCHITECTURE

FIGURE 106

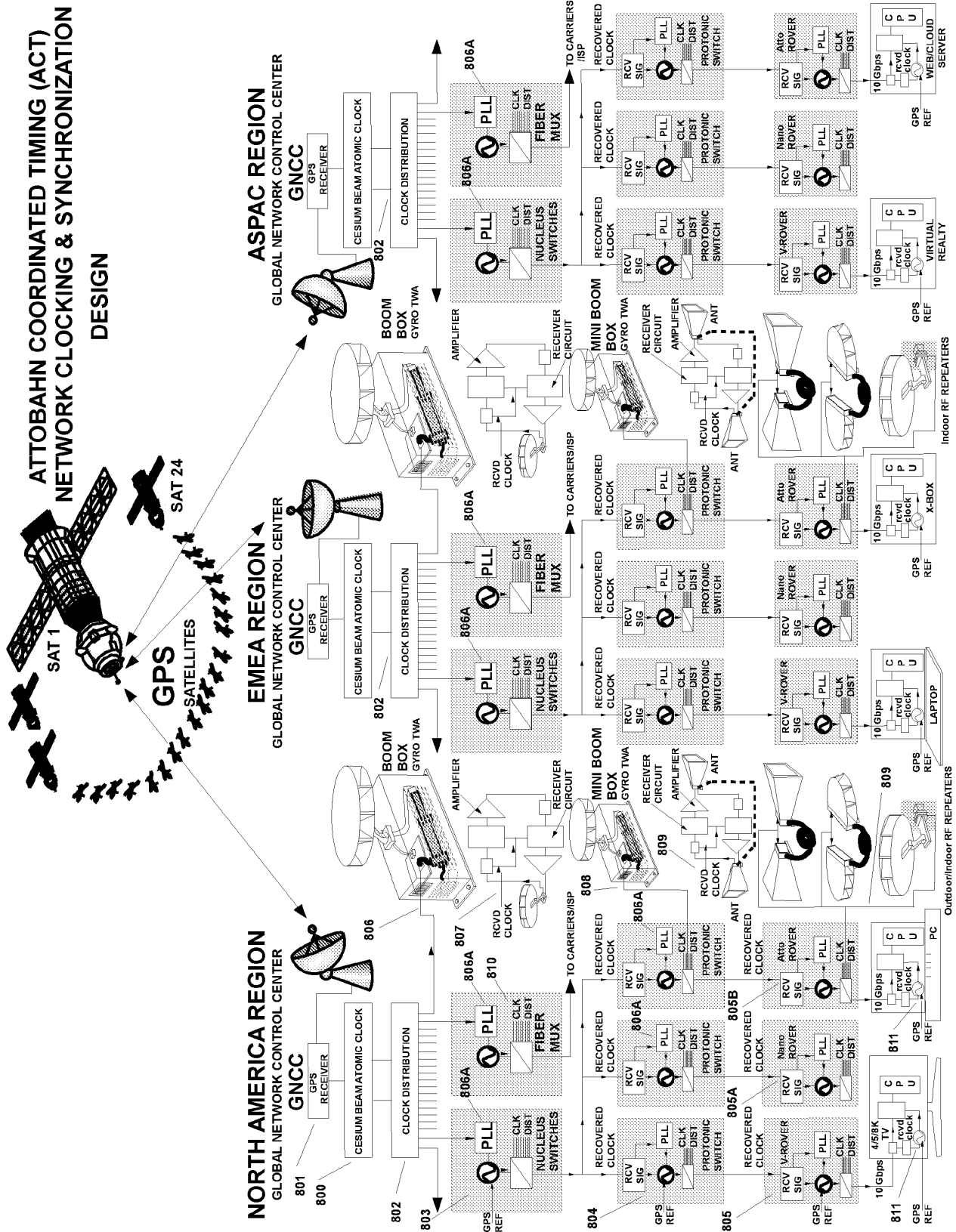
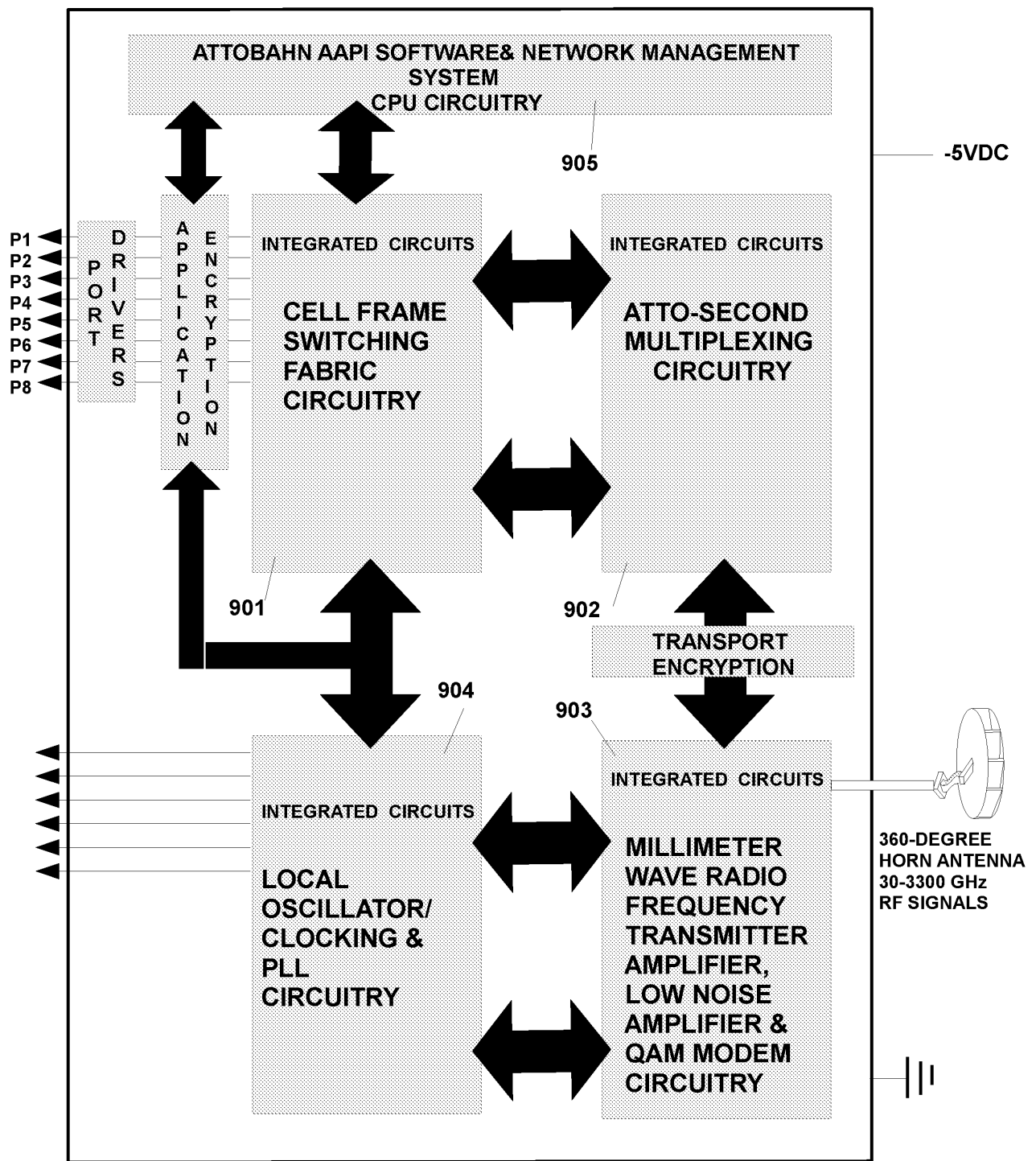


FIGURE 107

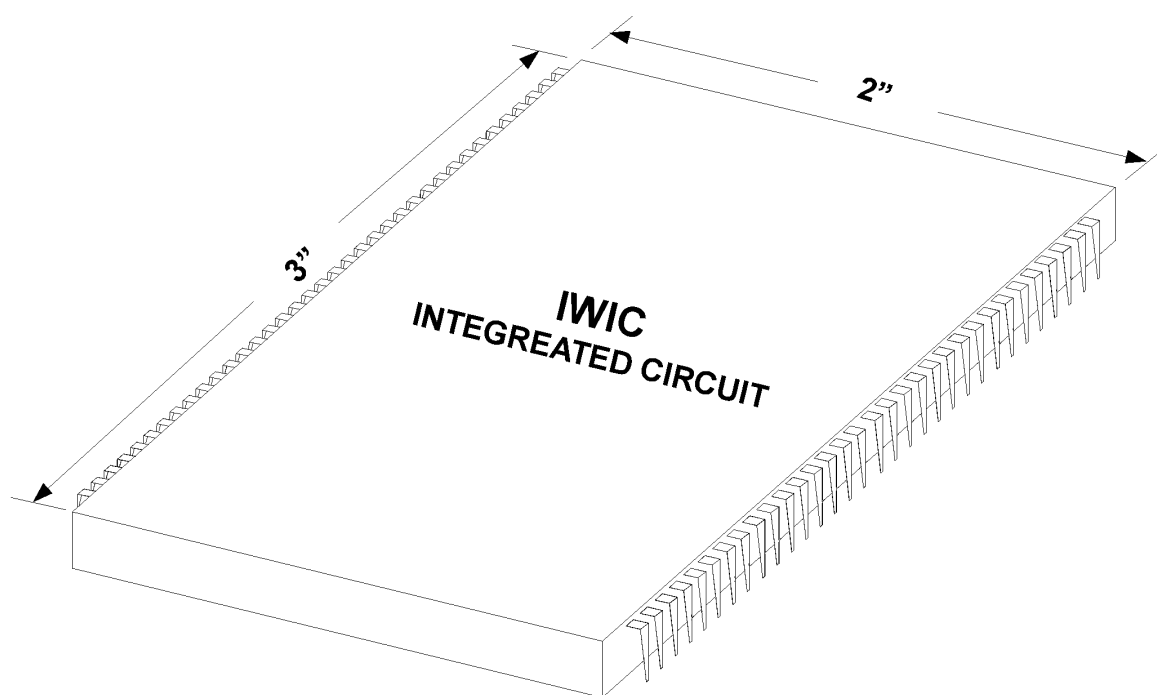


IWIC CHIP

INSTINCTIVELY WISE INTEGRATED CIRCUIT (IWIC)

ATTOBAHN IWIC CHIP DESIGN

FIGURE 108



ATTOBAHN IWIC CHIP DIMENSIONS

FIGURE 109