

Microwave Attenuator Assemblies Digital or Analog Controlled Broadband, High Speed, Monotonic

- 0.2 to 40.0 GHz
- Power handling to +24 dBm
- High speed response
- Resolution to 10 Bits
- Monotonic Response
- Attenuation Range to 120 dB
- Flat Response
- Hermetic Sealed Option

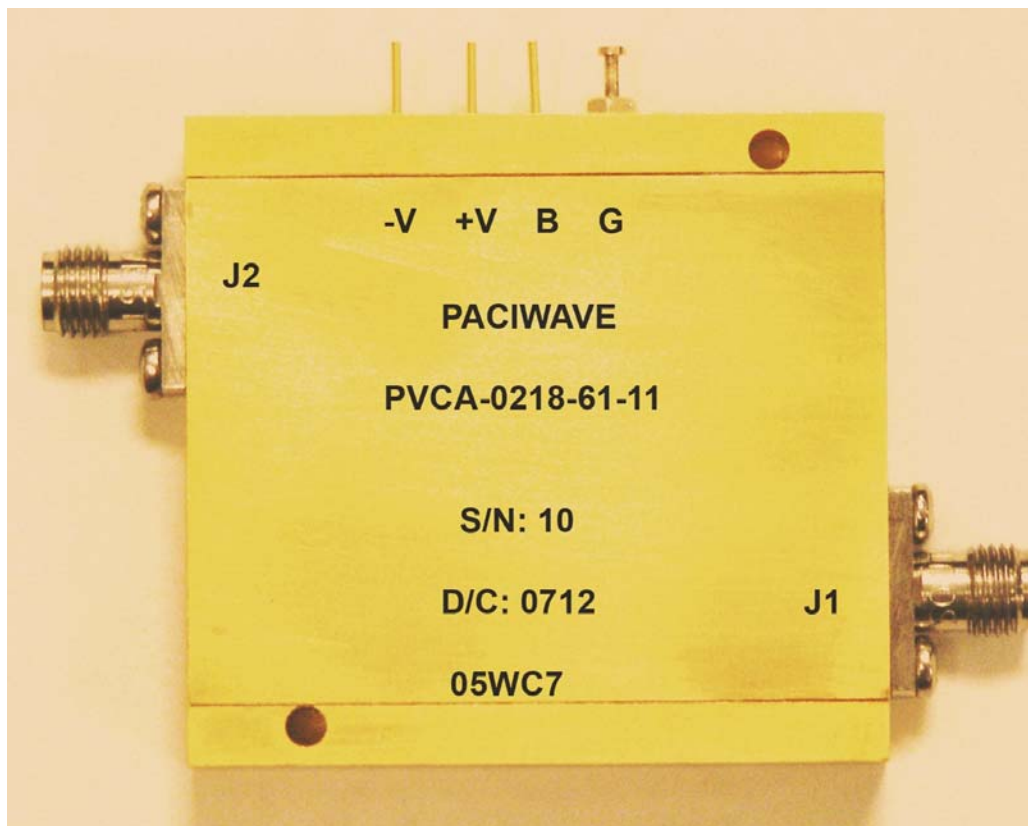


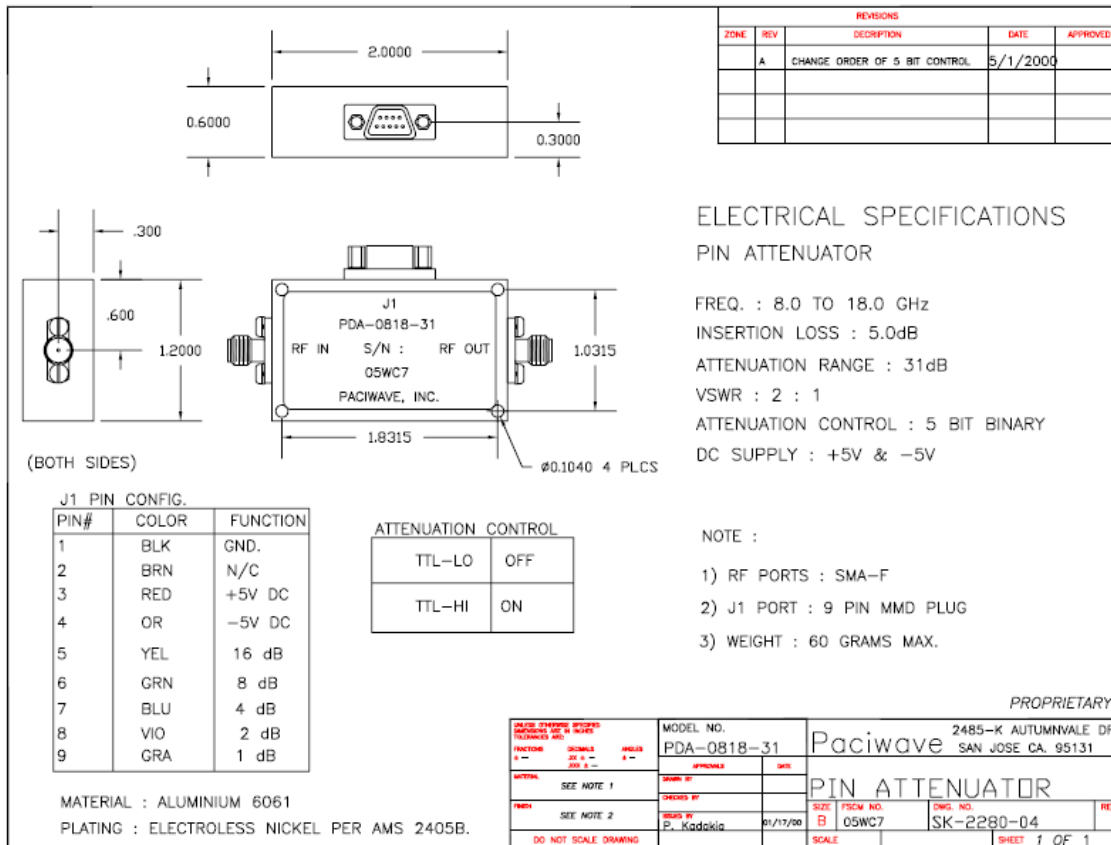
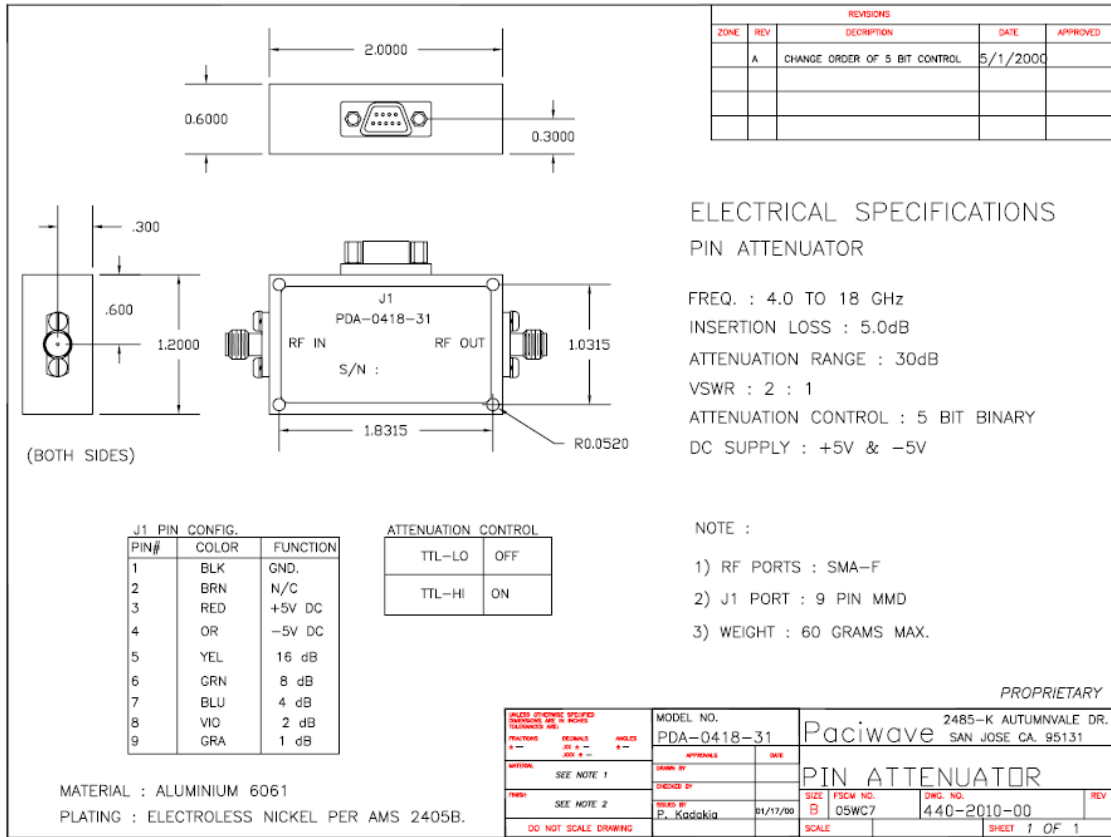
Paciwave, Inc., is a leading supplier of Microwave Components and Custom Microwave Assemblies. Paciwave's line of Digital or Analog Controlled Attenuator Assemblies are available as standard catalog items or custom built per individual customer requirement. Attenuators are available in narrow band versions, as well as broadband versions with attenuation ranges to 120 dB.

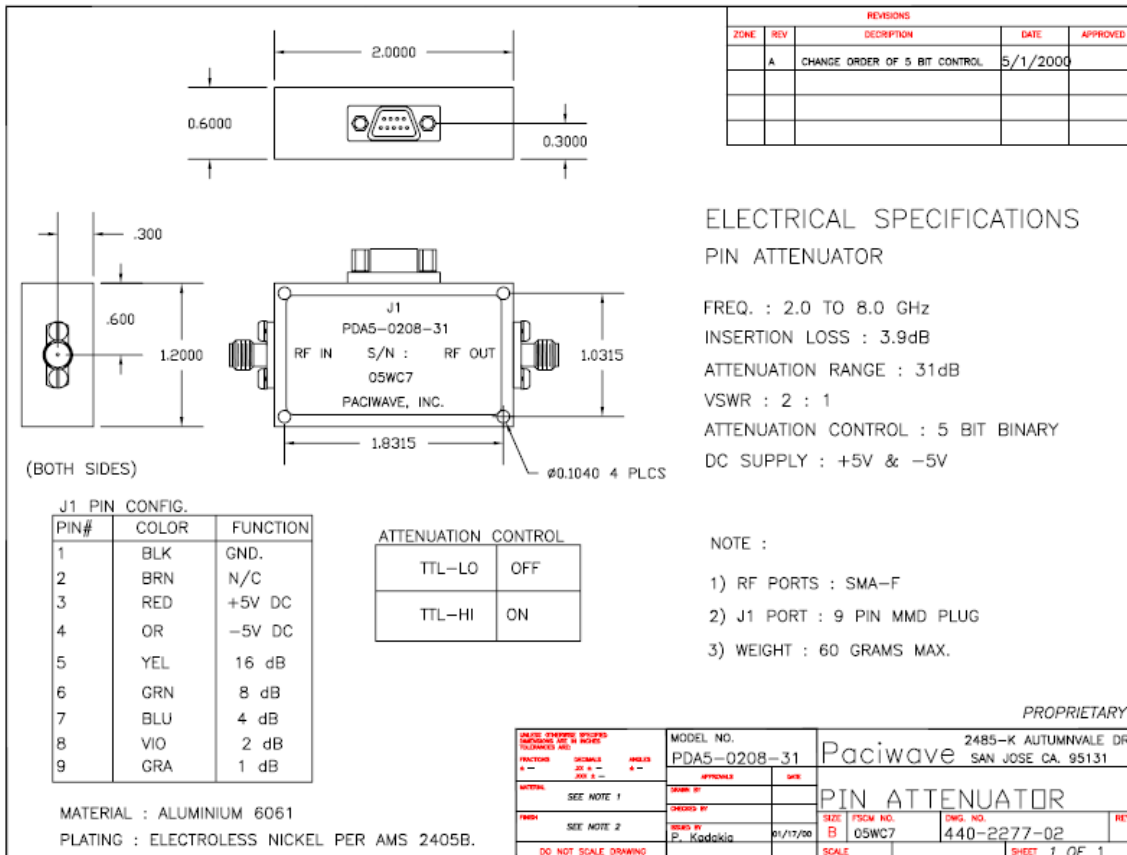
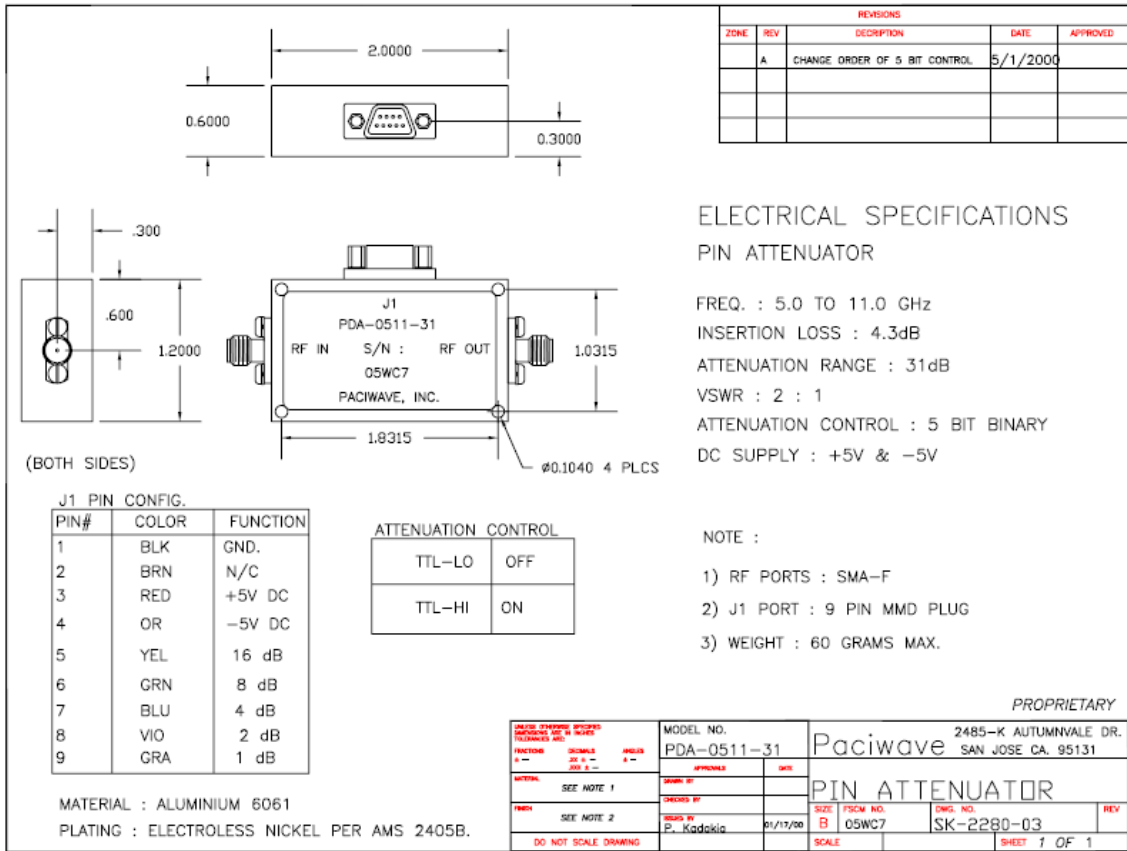
Units feature compact packaging, fast attenuation response times, flat frequency response, low insertion loss, monotonic attenuation curves and good power handling capability.

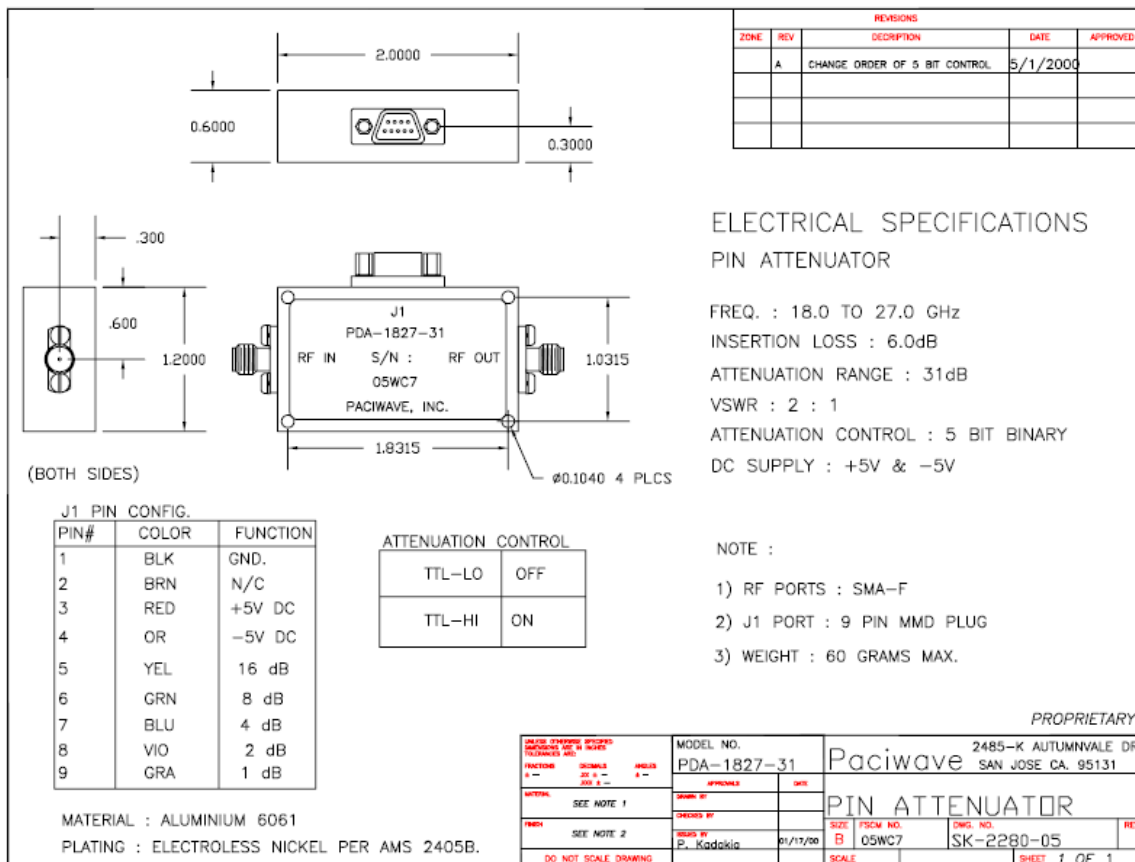
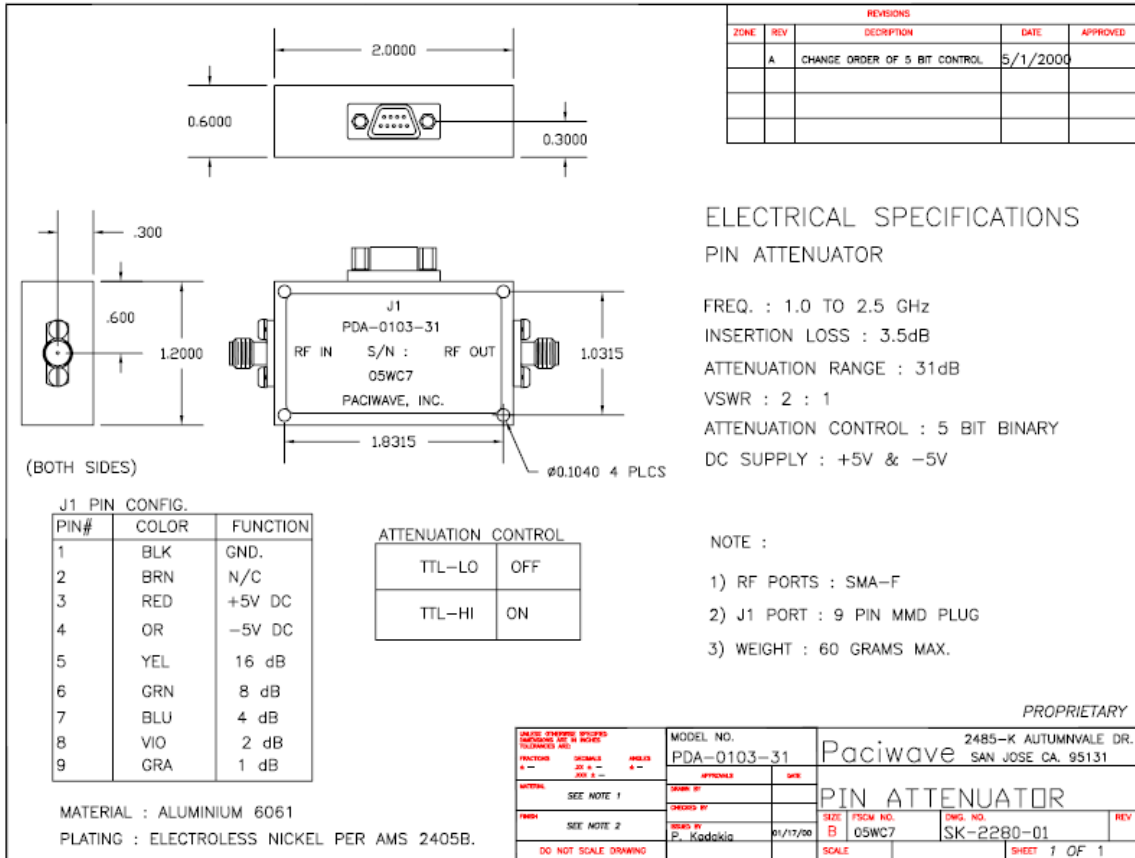
Customization is available for packaging, exact frequency bands, resolution and attenuation range. Unit control can be via TTL, USB, LAN.

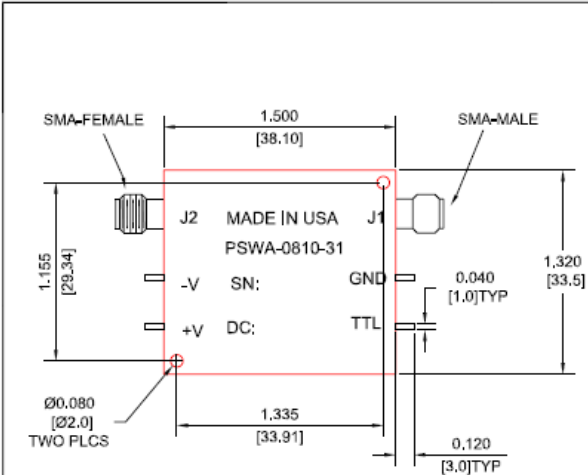
Integrated units are typically housed in a hermetically sealed enclosure, and are designed to operate in a Military tactical environment. Cooling, if needed, can be via conduction to baseplate. Paciwave looks forward to working with our customers on their Attenuator and other custom component requirements, please contact Paciwave directly or your local Paciwave Sales Representative.











REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	CHANGE DC PIN TYPE 1094-1	07/21/03	

ELECTRICAL SPECIFICATIONS

FREQ. RANGE: 8.5-9.6 GHZ.
 INS. LOSS (UNIT TO UNIT): 2.0 +/- 0.2 DB.
 FLATNESS: +/- 0.3 DB.
 ATT. STATE #1: 0DB.
 ATT. STATE #2: 34 +/- 0.25 DB.
 PHASE TRACKING UNIT TO UNIT: +/- 10 DEG.
 PHASE CHANGE WITH ATT.: +/- 3 DEG.
 AMPL. VARIATION OVER TEMP.: +/- 0.5 DB.
 MAX. INPUT POWER: 20 DBM.
 VSWR IN/OUT BOTH STATES: 1.5:1 MAX.
 SWITCHING SPEED: 1 USEC. MAX.
 DC POWER: +/- 15 V. 50 MA. MAX.
 OPP. TEMP.: -40 TO +85 DEG. C

ENVIRONMENTAL SPECIFICATIONS

THERMAL SHOCK (NOT OPERATING): MIL-STD-202F-METH 107 A
 MECHANICAL SHOCK (OPERATING): MIL-STD-202F-METH 213, J
 VIBRATION (OPERATING): MIL-STD-202F, METH 204-COND B
 SEALING (NOT OPERATING): MIL-STD-202F, METH 112-PROC IV, COND D
 LOW PRESSURE (OPERATING): MIL-STD-202F-METH 105, COND F
 SOLVENTS RESISTANCE (NOT OPERATING): MIL-STD-202F METH 215
 MOISTURE RESISTANCE (OPERATING): MIL-STD-202F, METH 106
 SALT FOG (NOT OPERATING): MIL-STD-202F-METH 101, COND A
 FINISHING: GOLD PLATE PER MIL-G-45204C

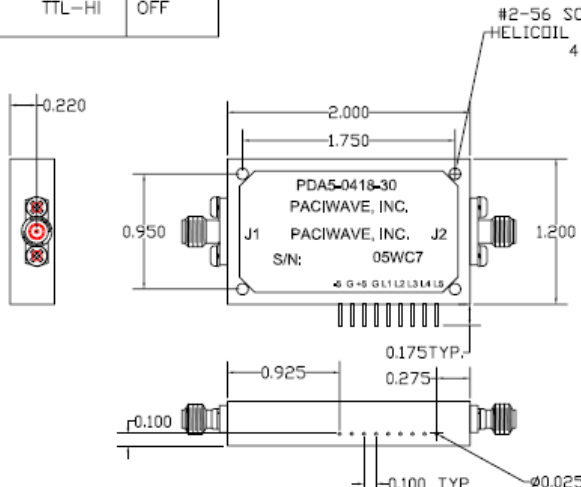
PROPRIETARY

<small>PLEASE CHANGE SUFFIXES DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small>		<small>MODEL NO.</small> PSWA-0810-31	Paciwave 2485-K AUTUMNVILLE DR. SAN JOSE CA. 95131
<small>FRACIONS DECIMALS ANGLES 1/16 1/32 1/64 1/8 1/4 1/2 1</small>	<small>APPROVALS</small> DESIGNED BY: [] CHECKED BY: [] DRAWN BY: P. KADAKIA DATE: 07/10/03	<small>DATE</small> 07/10/03	OUTLINE-2 ST. ATT.
<small>DO NOT SCALE DRAWING</small>	<small>SIZE</small> B	<small>FSCM NO.</small> 05WC7	<small>DWG. NO.</small> 440-2314-00
	<small>SCALE</small>		<small>REV</small> A
			<small>SHEET 1 OF 1</small>

ATTENUATION CONTROL

TTL-LO	ON
TTL-HI	OFF

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



ELECTRICAL SPECIFICATIONS

PIN ATTENUATOR
 FREQ. : 0.5 TO 18.0 GHz
 INSERTION LOSS : 6.0dB
 ATTENUATION RANGE : 31dB
 VSWR : 2 : 1
 ATTENUATION CONTROL : 5 BIT BINARY
 DC SUPPLY : +5V & -5V

PIN	FUNCTION
-5	-5V SUPPLY
G	GND
+5	+5V SUPPLY
G	GND
L1	16dB ATTEN.
L2	8dB ATTEN.
L3	4dB ATTEN.
L4	2dB ATTEN.
L5	1dB ATTEN.

PROPRIETARY

<small>PLEASE CHANGE SUFFIXES DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small>		<small>MODEL NO.</small> PDA5-0418-30	Paciwave 2485-K AUTUMNVILLE DR. SAN JOSE CA. 95131
<small>FRACIONS DECIMALS ANGLES 1/16 1/32 1/64 1/8 1/4 1/2 1</small>	<small>APPROVALS</small> DESIGNED BY: [] CHECKED BY: [] DRAWN BY: P. KADAKIA DATE: 07/10/03	<small>DATE</small> 07/10/03	OUTLINE DIG. ATTEN.
<small>DO NOT SCALE DRAWING</small>	<small>SIZE</small> B	<small>FSCM NO.</small> 05WC7	<small>DWG. NO.</small> SK-2340-00
	<small>SCALE</small>		<small>REV</small> B
			<small>SHEET 1 OF 1</small>

2.0000
0.6000
0.3000
.300
.600
1.2000
1.0315
1.8315
Ø0.1040 4 PLCS

J3
PACIWAVE, INC.
PDA5-R518-31
S/N :
MADE IN USA
J1 J2

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
-	-	NEW RELEASE	5/1/2002	

ELECTRICAL SPECIFICATIONS

DIGITAL PIN ATTENUATOR

FREQ. : 0.5 TO 18 GHz
 INSERTION LOSS : 5.0 dB
 ATTENUATION RANGE : 31dB
 VSWR : 2 : 1
 ATTENUATION CONTROL : 5 BIT BINARY
 ATTENUATION ACCURACY : ±10%
 SWITCHING SPEED: 100 nsec
 DC SUPPLY : +5V@150mA & -5V@100mA

NOTE :
 1) RF PORTS : SMA-F
 2) J1 PORT : 9 PIN MMD PLUG
 3) WEIGHT : 60 GRAMS MAX.

PROPRIETARY

J1 PIN CONFIG.		
PIN#	COLOR	FUNCTION
1	BLK	GND
2	BRN	-5V
3	RED	+5V DC
4	OR	NC
5	YEL	16dB
6	GRN	8dB
7	BLU	4dB
8	VIO	2dB
9	GRA	1dB

ATTENUATION CONTROL	
TTL-LO	OFF
TTL-HI	ON

DATE CHANGED BY: TOLERANCES UNLESS SPECIFIED	MODEL NO. PDA5-R518-31	2485-K AUTUMNVALE DR. SAN JOSE CA. 95131
FUNCTIONS: 4 - SIGNALS: 20 0 - WELDS: 4 - DIMS: 2 -	APPROVALS: DATE:	Paciwave
SYMBOL: SEE NOTE 1	CHECKED BY:	PIN ATTENUATOR
INCH: SEE NOTE 2	DESIGN BY: P. Kadakia	SIZE: FSCM NO. DWG. NO. REV B 05WC7 440-2549-01
DO NOT SCALE DRAWING	DATE: 01/17/00	SCALE: SHEET 1 OF 1

MATERIAL : ALUMINIUM 6061
 PLATING : ELECTROLESS NICKEL PER AMS 2405B.

2.0000
0.6000
0.3000
.300
.600
1.2000
1.0315
1.8315
Ø0.1040 4 PLCS

J3
PACIWAVE, INC.
PDA-R3R5-83
S/N :
MADE IN USA
J1 J2

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
-	-	NEW RELEASE	5/1/2002	

ELECTRICAL SPECIFICATIONS

DIGITAL PIN ATTENUATOR

FREQ. : 0.300 TO 0.500 GHz
 INSERTION LOSS : 3 dB
 ATTENUATION RANGE : 80dB
 VSWR : 2 : 1
 ATTENUATION CONTROL : 6 BIT BINARY
 DC SUPPLY : +15V@200mA & -12V@150mA

NOTE :
 1) RF PORTS : SMA-F
 2) J1 PORT : 9 PIN MMD PLUG
 3) WEIGHT : 60 GRAMS MAX.

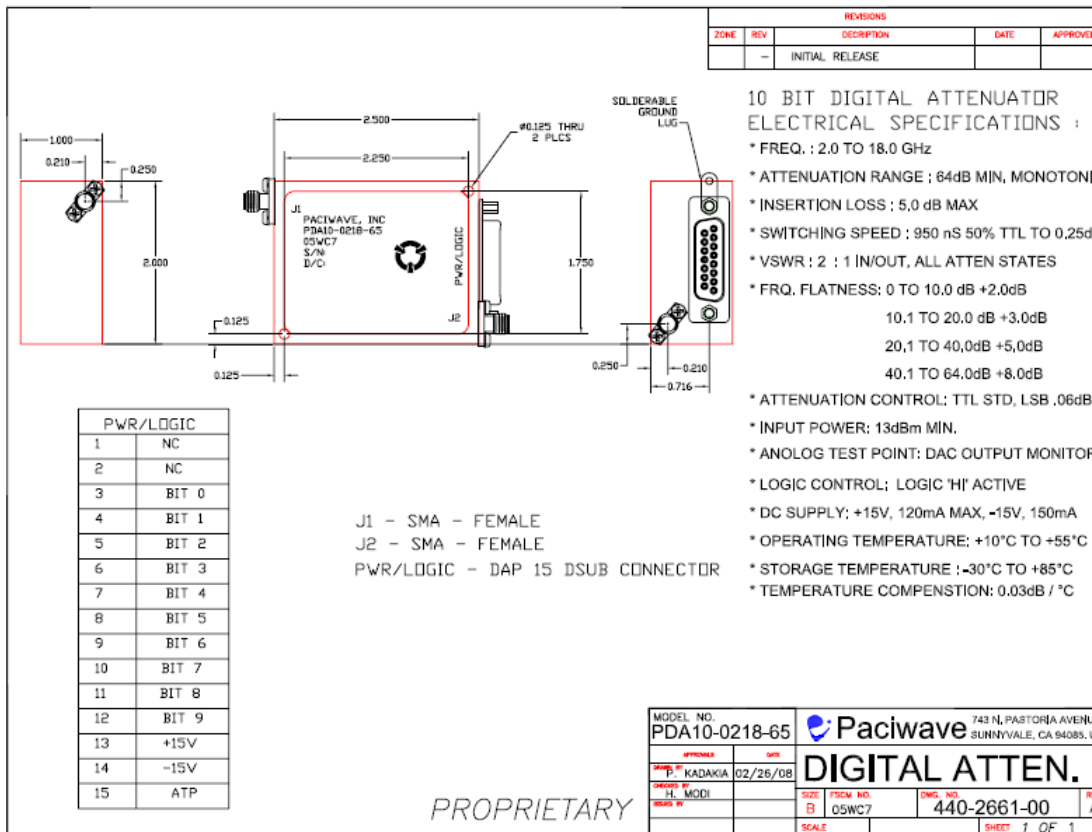
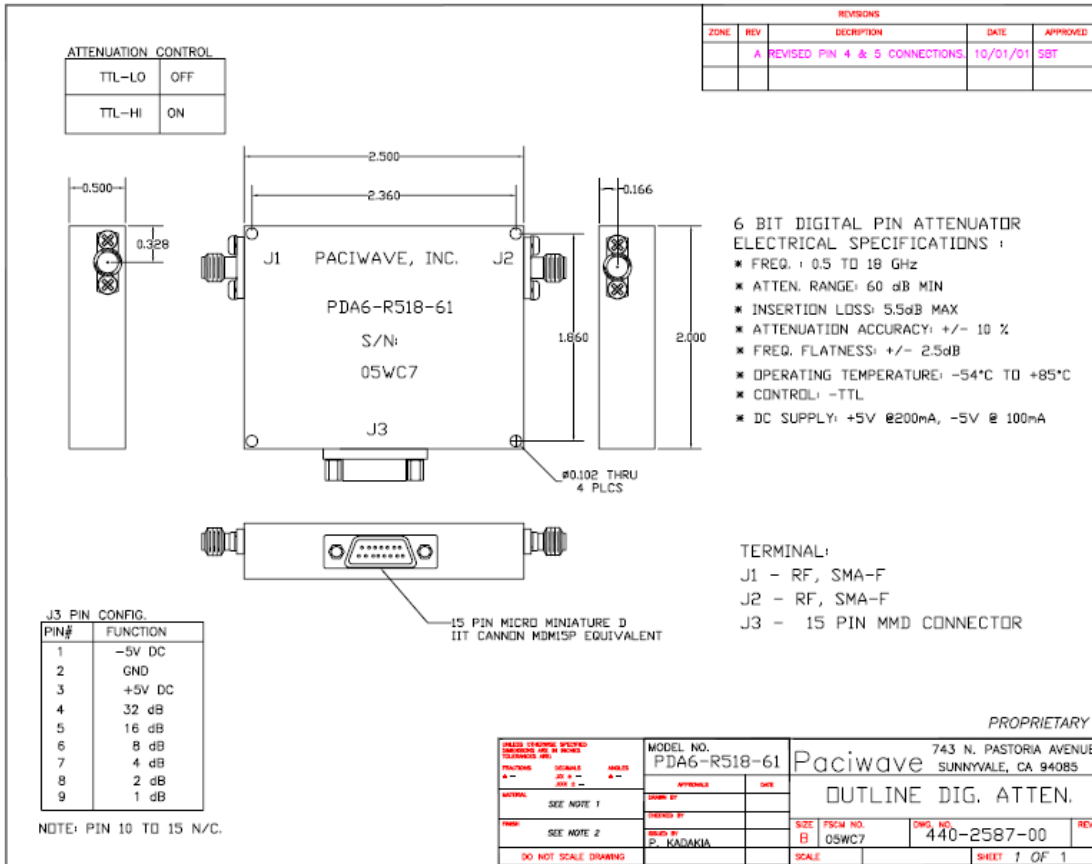
PROPRIETARY

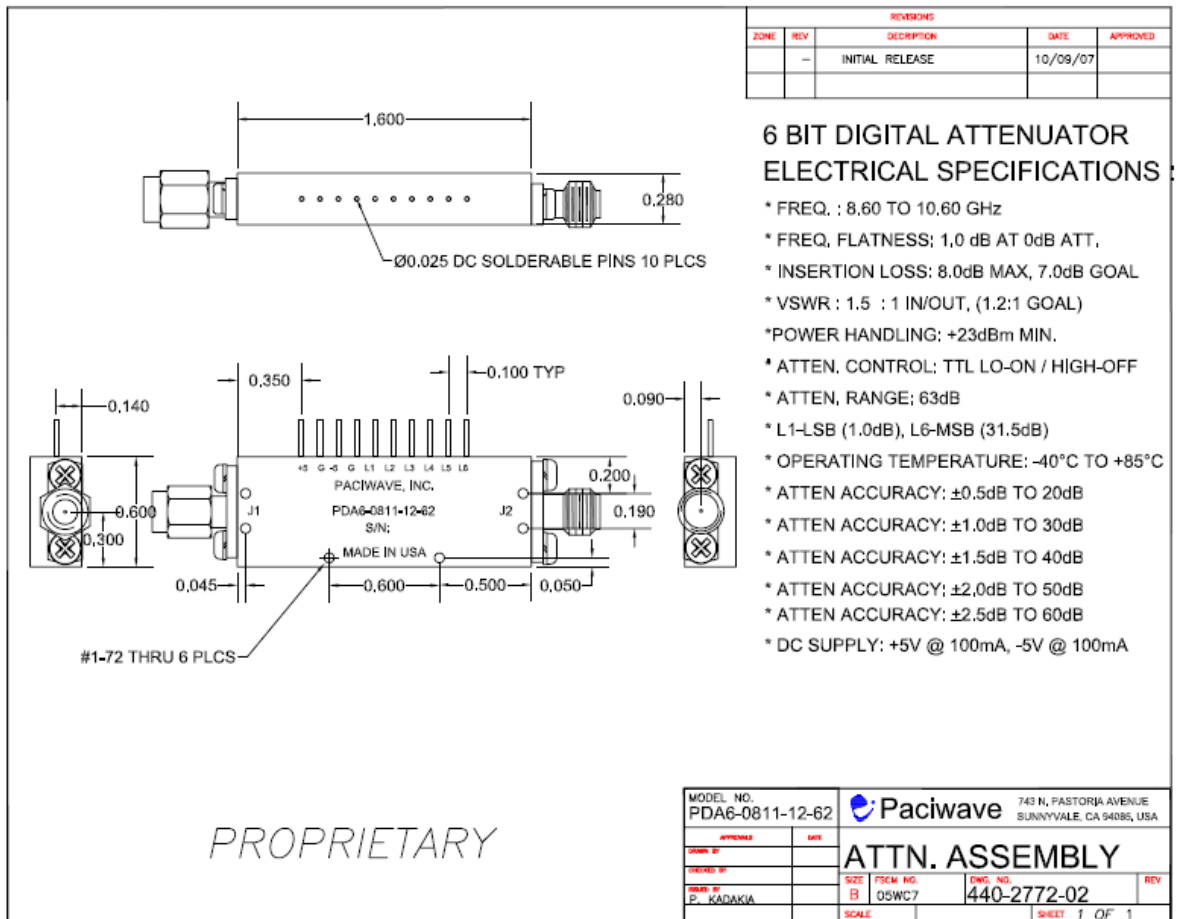
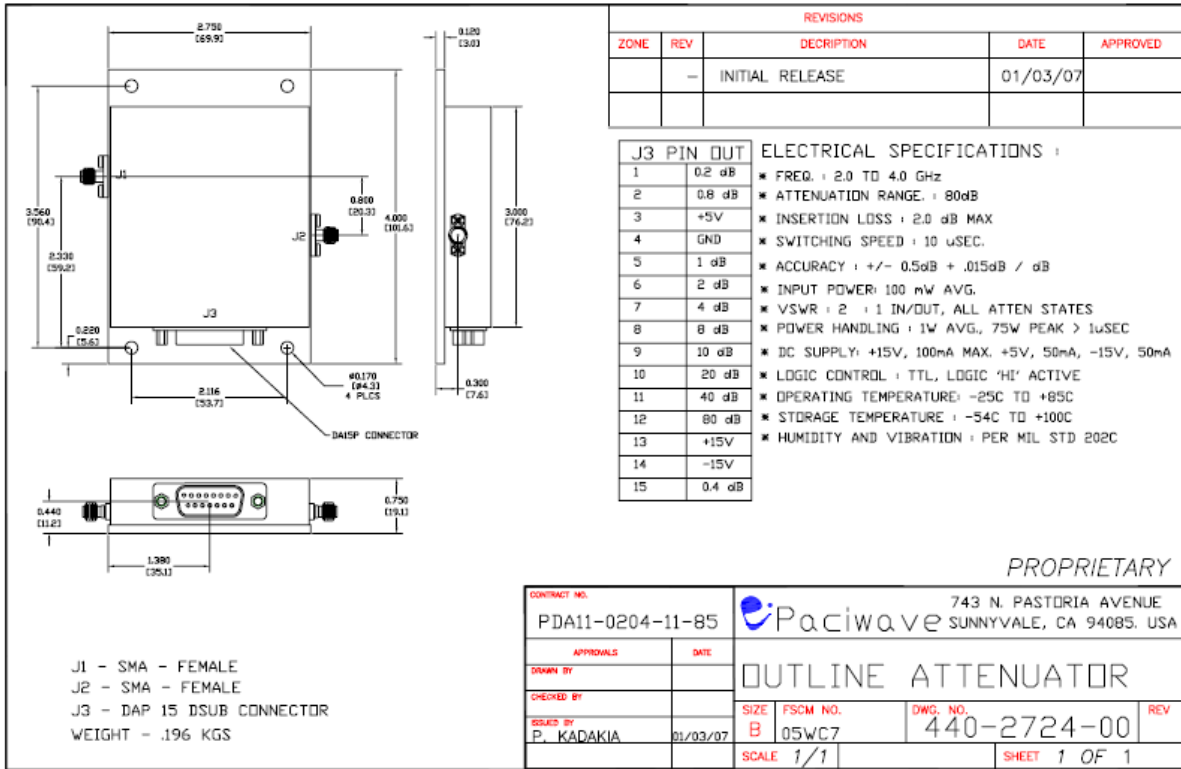
J1 PIN CONFIG.		
PIN#	COLOR	FUNCTION
1	BLK	-12V DC
2	BRN	GND
3	RED	+15V DC
4	OR	40dB
5	YEL	20dB
6	GRN	10dB
7	BLU	5dB
8	VIO	2.5dB
9	GRA	1.2dB

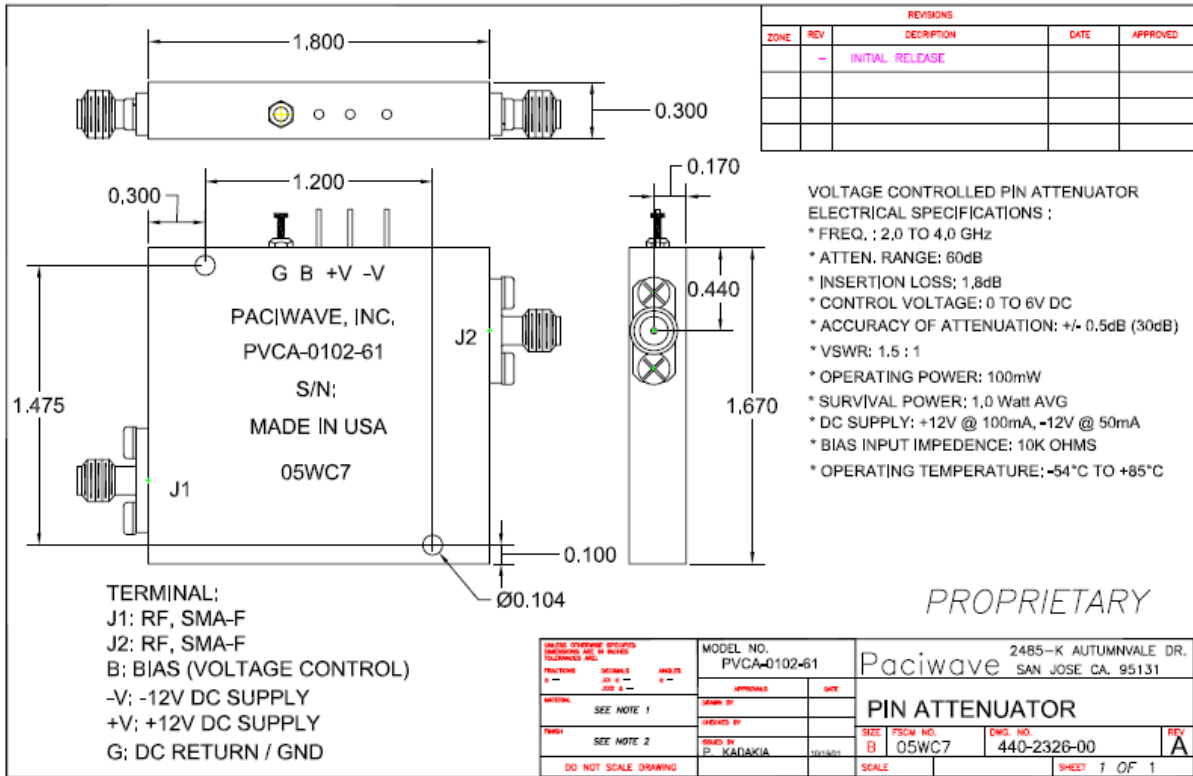
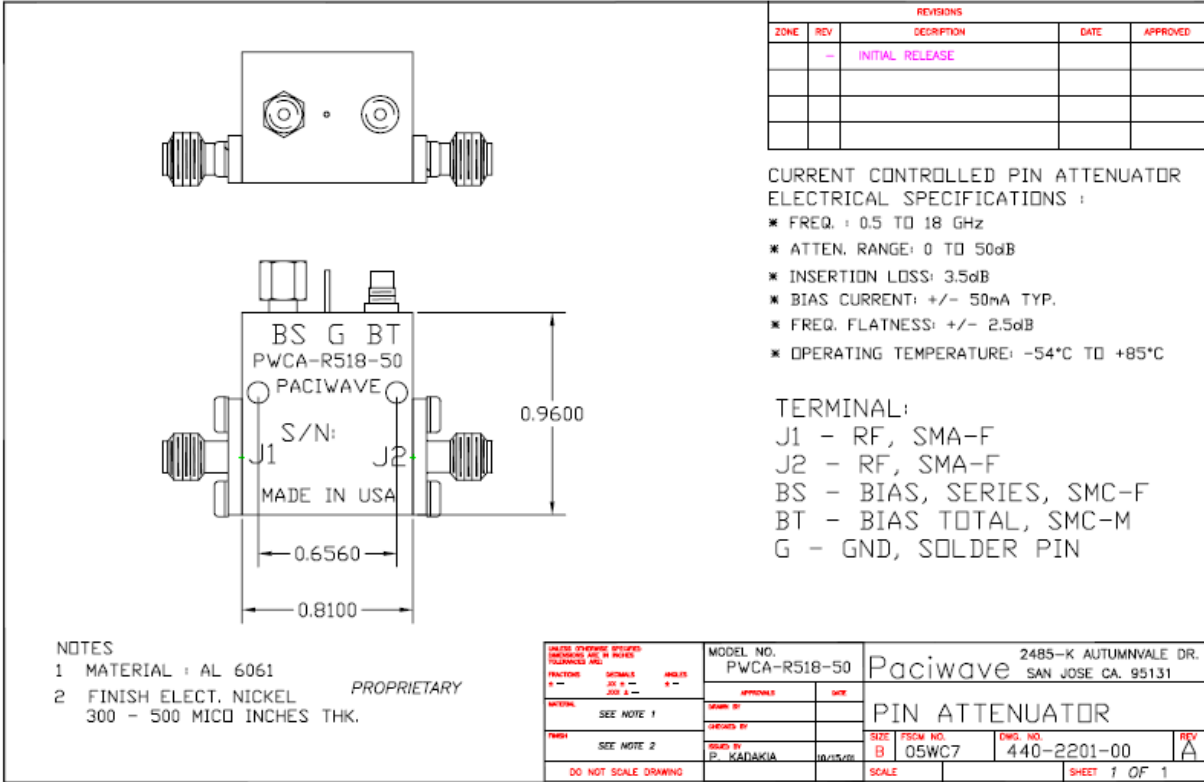
ATTENUATION CONTROL	
TTL-LO	OFF
TTL-HI	ON

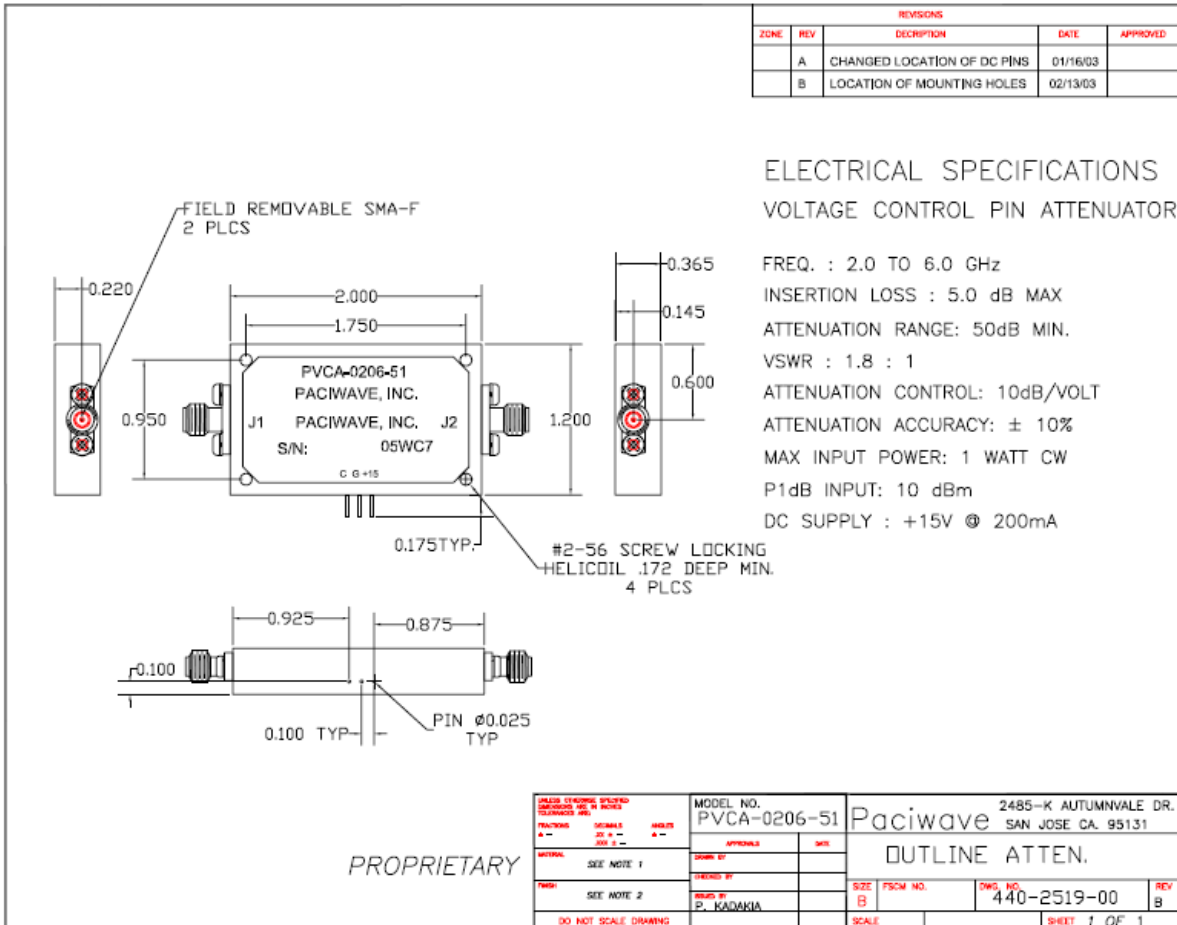
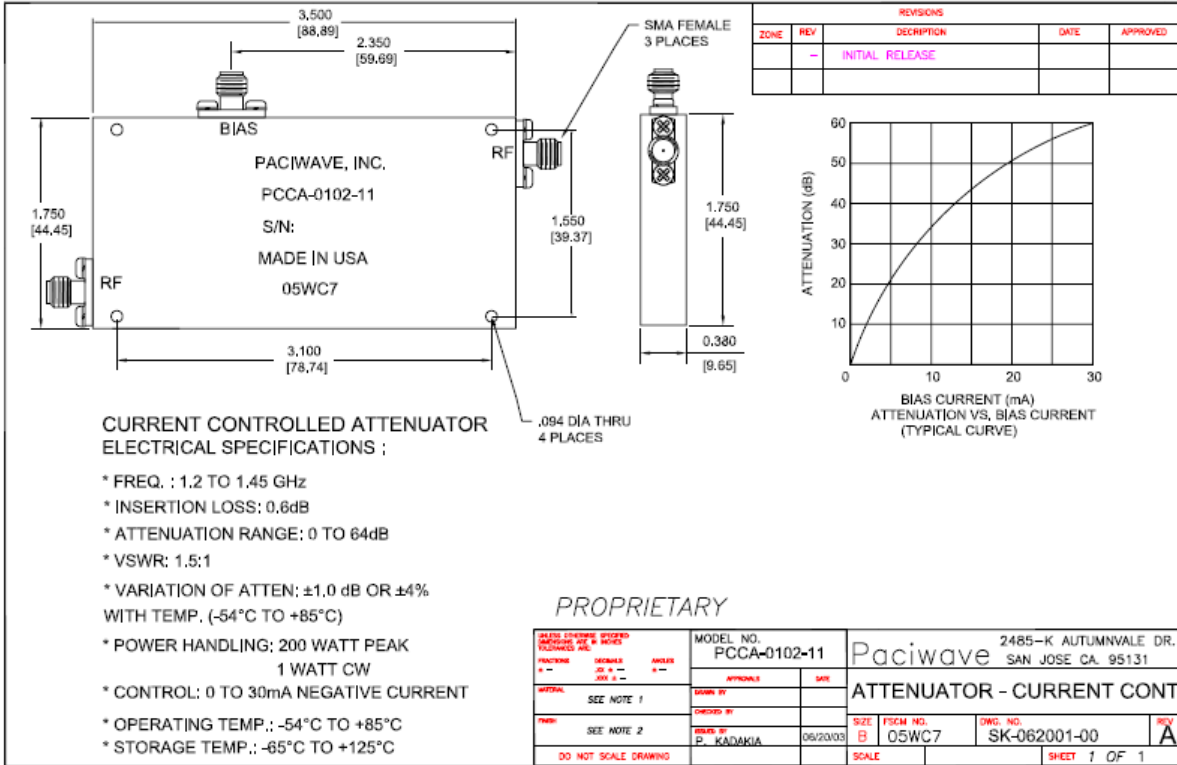
DATE CHANGED BY: TOLERANCES UNLESS SPECIFIED	MODEL NO. PDA-R3R5-83	2485-K AUTUMNVALE DR. SAN JOSE CA. 95131
FUNCTIONS: 4 - SIGNALS: 20 0 - WELDS: 4 - DIMS: 2 -	APPROVALS: DATE:	Paciwave
SYMBOL: SEE NOTE 1	CHECKED BY:	PIN ATTENUATOR
INCH: SEE NOTE 2	DESIGN BY: P. Kadakia	SIZE: FSCM NO. DWG. NO. REV B 05WC7 440-2264-00
DO NOT SCALE DRAWING	DATE: 01/17/00	SCALE: SHEET 1 OF 1

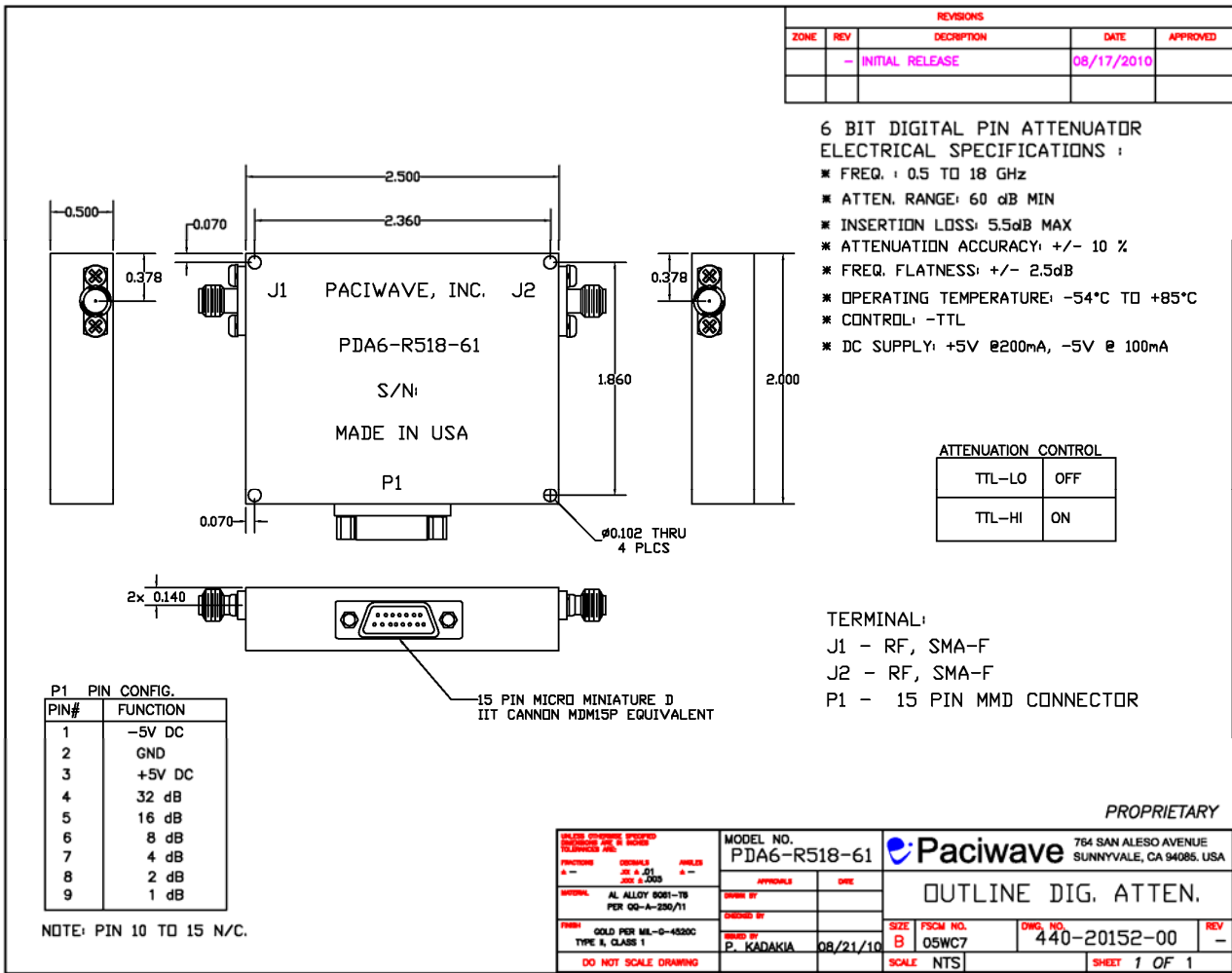
MATERIAL : ALUMINIUM 6061
 PLATING : ELECTROLESS NICKEL PER AMS 2405B.











<i>PROPRIETARY</i>		764 SAN ALEJO AVENUE SUNNYVALE, CA 94085, USA	
MODEL NO. PDA6-R518-61		Paciwave	
APPROVALS		DATE	
DRAWN BY		DATE	
CHECKED BY		DATE	
P. KADAKIA		08/21/10	
DO NOT SCALE DRAWING		SIZE B	FSCM NO. 05WC7
		DWG. NO. 440-20152-00	REV -
		SCALE NTS	SHEET 1 OF 1

Paciwave additionally provides attenuators in drop-in or coaxial packages. Please contact Paciwave directly for details.

