

***FCC PART 15, SUBPART C
TEST METHOD: ANSI C63.4-1992
TEST REPORT***

for

**Passive Keyless Entry
Model PNZ0202T**

OEM Manufacture:
Xilor Inc
1400 Liberty St.
Knoxville, TN 37909
(865) 546-9863

DATE: 11-20-2002

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REPORT SUMMARY

This is an electromagnetic emission test report. The test report is based on testing performed by Philips Testing Lab. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test are within the specification limits defined by CFR Title 47, Part 15, Subpart C, section 15.209.

Test Lab:	Philips Testing 3029 Gov. John Sevier Hwy. Knoxville TN 37914 FCC Reg.# 90875 NVLAP# 200409-0 (DBA Philips Consumer Electronics)
Device(s) Tested:	Passive Keyless Entry fob
Model or P/N(s):	Model PNZ0202T
Modifications:	The EUT was not modified during the testing.
Manufacturer:	Xilor Inc 1400 Liberty St. Knoxville TN 37909
Test Date:	11-18-2002
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart C, Section 15.209
Test Procedure:	ANSI C63.4: 1992
Test Deviation:	The test procedure was not deviated from during testing.

SUMMARY OF TEST RESULTS	
Conducted RF Emissions	This test was not performed because the EUT runs off 3-volt lithium coin cell only and cannot be powered by any device that runs off of the AC public mains.
Radiated RF Emissions	Complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.209.
END OF SUMMARY	

Radiated Emissions FCC Section 15.209

Report	# 23221	Test Distance	3 meters (adjusted limit for 3m per 15.31(f)(2))
Date	11/18/2002	Test Conditions	Unit FLAT
EUT	Passive Keyless Entry Fob		
Model	PNZ0202T		
Mfg.	Xilor		
FCC ID	PNZ0202T		

Frequency (MHz)	Horiz dBuV	Vert dBuV		Horiz Margin dBuV	Vert Margin dBuV				Limit dBuV
0.12	8.5	N/A		-91.5	N/A				100
0.24	2.8	N/A		-77.2	N/A				80
0.36	-2.9	N/A		-82.9	N/A				80

Test Equipment Setup/Comments

- 1) The above table of values are PEAK READINGS WITH CABLE AND ANTENNA FACTORS ALREADY INCLUDED.
- 2) 9kHz-150kHz: RBW = 1kHz & VBW < 1 kHz
- 3) The antenna was rotated about its vertical axis and the maximum radiation levels are recorded. The center of the loop is 1 meter above ground.
- 4) New battery used for test

Radiated Emissions FCC Section 15.209			
Report	# 23221	Test Distance	3 meters (adjusted limit for 3m per 15.31(f)(2))
Date	11/18/2002	Test Conditions	Unit on SIDE
EUT	Passive Keyless Entry Fob		
Model	PNZ0202T		
Mfg.	Xilor		
FCC ID	PNZ0202T		

Frequency (MHz)	Horiz dBuV	Vert dBuV		Horiz Margin dBuV	Vert Margin dBuV				Limit dBuV
0.12	9.4	N/A		-90.6	N/A				100
0.24	2.8	N/A		-77.2	N/A				80
0.36	-3.0	N/A		-83.0	N/A				80

Test Equipment Setup/Comments
<p>1) The above table of values are PEAK READINGS WITH CABLE AND ANTENNA FACTORS ALREADY INCLUDED.</p> <p>2) 9kHz-150kHz: RBW = 1kHz & VBW < 1 kHz</p> <p>3) The antenna was rotated about its vertical axis and the maximum radiation levels are recorded. The center of the loop is 1 meter above ground.</p> <p>4) New battery used for test</p>

Radiated Emissions FCC Section 15.209			
Report	# 23221	Test Distance	3 meters (adjusted limit for 3m per 15.31(f)(2))
Date	11/18/2002	Test Conditions	Unit on END
EUT	Passive Keyless Entry Fob		
Model	PNZ0202T		
Mfg.	Xilor		
FCC ID	PNZ0202T		

Frequency (MHz)	Horiz dBuV	Vert dBuV		Horiz Margin dBuV	Vert Margin dBuV				Limit dBuV
0.12	8.9	N/A		-91.1	N/A				100
0.24	2.7	N/A		-77.3	N/A				80
0.36	-2.4	N/A		-82.4	N/A				80

Test Equipment Setup/Comments
<p>1) The above table of values are PEAK READINGS WITH CABLE AND ANTENNA FACTORS ALREADY INCLUDED.</p> <p>2) 9kHz-150kHz: RBW = 1kHz & VBW < 1 kHz</p> <p>3) The antenna was rotated about its vertical axis and the maximum radiation levels are recorded. The center of the loop is 1 meter above ground.</p> <p>4) New battery used for test</p>

CLASSIFICATION / DESCRIPTION	ASSET TAG #	MFG.	MODEL	S/N	LAST CAL	CAL DUE	CONDITION RECEIVED N = NEW U = USED	HISTORY	NOTES/ COMMENTS
Signal Generators									
	A0060602	HP	8640B	1948A11777	2002-03-05	2003-06-30	N	Located in Main Equipment file	
	R15090	HP	8640B	1943A09701	2002-03-05	2003-06-30	N	Located in Main Equipment file	
	T29644	HP	8656A	2402A06139	2002-07-25	2004-07-31	N	Located in Main Equipment file	
	T33471	HP	8657A	2907A00278	2002-07-22	2004-07-22	N	Located in Main Equipment file	
	EX2028	HP	8656B	3334U15213	2001-08-14	2003-02-02	N	Located in Main Equipment file	
	T38929	HP	83620A	3212A01206	2002-07-22	2004-07-22	N	Unit's output power was several dB out of spec. and there was a wide variance in amplitude across freq. range. Found internal output cable bad. It was replaced.	

Spectrum Analyzer									
	T40076	HP	8566B	2311A02228	2002-09-20	2003-09-20	N	Located in Main Equipment file	
	T40010	HP	85662B display	2318A05038	2002-09-20	2003-09-20	N	Located in Main Equipment file	
	T37815	HP	85660B	3014A06612	2002-07-22	2003-07-22	N	Located in Main Equipment file	
	T37816	HP	85662B display	3014A19027	2002-07-17	2003-07-17	N	Located in Main Equipment file	
	T29655	HP	8568B	2314A02597	2002-03-18	2003-03-18	N	Located in Main Equipment file	
	T29655A	HP	85662A display	2314A04851	2001-03-18	2003-03-18	N	Located in Main Equipment file	
	T28220	HP	8568B	2216A02236	2002-08-30	2003-08-30	N	Located in Main Equipment file	
	T28220A	HP	8568B display	2237A03915	2002-08-30	2003-08-30	N	Located in Main Equipment file	
	EX1754	HP	85660B	2637A03486	2002-09-20	2003-09-20	N	Located in Main Equipment file	
	EX1755	HP	85662A display	2517A09433	2002-09-20	2003-09-20	N	Located in Main Equipment file	

QP Adapters									
	EX0526	Eaton	CCA-7	17703080	2001-10-22	2003-04-20	N	Located in Main Equipment file	
	T33168	HP	85650A	2521A01001	2002-01-29	2003-07-28	N	Located in Main Equipment file	
	RN0043	HP	85650A	3303A01850	2002-07-17	2003-07-17	U		

RF Pre-Selectors									
	T33167	HP	85685A	2724A00627	2002-01-24	2003-07-28	N	Located in Main Equipment file	
	T33122	HP	85685A	2724A00595	2002-09-25	2003-09-25	N	Located in Main Equipment file	
	RN0044	HP	85685A	3010A01176	2002-01-22	2003-01-22	U		

CLASSIFICATION / DESCRIPTION	ASSET TAG #	MFG.	MODEL	S/N	LAST CAL	CAL DUE	CONDITION RECEIVED N = NEW U = USED	HISTORY	NOTES/ COMMENTS
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Field Intensity Meters

	EX0527	Eaton	NM 17/27A	062603355	2001-10-22	2003-04-20	N	Located in Main Equipment file	
	R15881	Ailtech	NM 37/57A-SL	0677-81335	2001-12-20	2003-06-18	N	Located in Main Equipment file	
	T28294	Holaday	HI-3004	33311	2001-09-10	2003-03-09	N	Located in Main Equipment file	
	T37836	Holaday	HI-3600	75339	2001-09-17	2003-03-16	N	Out for Calibration	
	T39564	Amp. Res.	FM 2000	16521	--	NCR	N	Located in Main Equipment file	
	EX2038	Amp. Res.	FM 5004	22282	--	NCR	N	Located in Main Equipment file	

RF Probe

	EX2042	Amp. Res.	FP 5000	22447	2001-12-03	2003-06-01	N	Located in Main Equipment file	
	T39565	Amp. Res.	FP 2000	16411	2001-09-27	2003-03-06	N	Located in Main Equipment file	
	EX1796	Eaton	91550-1L	360	2001-09-07	2003-03-06	N	Located in Main Equipment file	
	EX1576	Eaton	91550-1L	359	2001-09-07	2003-03-06	N	Located in Main Equipment file	
	EX2050	Eaton	94111-1	1348	2001-09-07	2003-03-06	N	Located in Main Equipment file	
	EX1819	Fluke	80L-1010	66260017	2002-07-29	2004-01-31	N	Located in Main Equipment file	

Noise Figure

	EX1793	Ailtec	7380	2313	2001-10-17	2003-04-15	N	Located in Main Equipment file	
	EX1794	Ailtec	7615	3116	2001-12-18	2003-06-16	N	Located in Main Equipment file	
	A0054289	Ailtec	7615	2738	2001-10-16	2003-04-14	N	Located in Main Equipment file	
	T39195	HP	346B	3318A11564	2001-12-03	2003-06-01	N	Located in Main Equipment file	
	T39199	HP	8970B	3247U03144	2001-11-15	2003-05-14	N	Located in Main Equipment file	

Bicon Antennas

	EX1523	EMCO	3110B	9403-1679	2002-01-17	2003-01-17	N	Located in Main Equipment file	
	EX1663	EMCO	3110B	9411-1951	2002-09-09	2003-12-09	N	Located in Main Equipment file	
	EX1711	EMCO	3110B	9209-1549	2002-01-04	2003-01-04	N	Located in Main Equipment file	

Log-Periodic Antennas

	EX1713	EMCO	3146	3571	2002-09-08	2003-09-08	N	Located in Main Equipment file	
	EX1664	EMCO	3146	9502-3974	2002-01-22	2003-01-22	N	Located in Main Equipment file	
	EX1527	EMCO	3146	9210A03455	2002-01-02	2003-01-02	N	Located in Main Equipment file	

CLASSIFICATION / DESCRIPTION	ASSET TAG #	MFG.	MODEL	S/N	LAST CAL	CAL DUE	CONDITION RECEIVED N = NEW U = USED	HISTORY	NOTES/ COMMENTS
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CE Immunity Networks

	EX1778	Fischer	EN55020-FA	001	2001-10-03	2003-04-01	N	Located in Main Equipment file	
	EX1782	Fischer	EN55020-FA	002	2001-10-31	2003-04-01	N	Located in Main Equipment file	
	EX1779	Fischer	EN55020-SW7	001	2001-10-03	2003-04-01	N	Located in Main Equipment file	
	EX1787	Fischer	EN55020-SW7	002	2001-10-05	2003-04-03	N	Located in Main Equipment file	
	EX1780	Fischer	EN55020-L2	001	2001-10-03	2003-04-01	N	Located in Main Equipment file	
	EX1784	Fischer	EN55020-L2	002	2001-10-05	2003-04-03	N	Located in Main Equipment file	
	T39587	Fischer	801-M3-32	101	2001-10-17	2003-04-15	N	Located in Main Equipment file	
	T39970	Fischer	801-M3-32	105	2001-10-17	2003-04-15	N	Located in Main Equipment file	
	T39588	Fischer	F-120-9	31	2001-11-05	2003-05-05	N	Located in Main Equipment file	
	T39969	Fischer	F-120-9	72	2001-08-22	2003-02-18	N	Located in Main Equipment file	
	EX1781	Fischer	EN55020-SW2	001	2001-10-03	2003-04-01	N	Located in Main Equipment file	
	EX1783	Fischer	EN55020-SW2	002	2001-12-13	2003-06-11	N	Located in Main Equipment file	

LISN

	EX1828	Fischer	50-50-1-02	97-05	2001-10-15	2003-04-01	N	Located in Main Equipment file	
	EX1829	Fischer	50-50-1-02	97-06	2001-10-15	2003-04-01	N	Located in Main Equipment file	
	EX1830	Fischer	50-50-1-02	97-07	2001-10-15	2003-04-01	N	Located in Main Equipment file	
	EX1831	Fischer	50-50-1-02	97-08	2001-12-05	2003-04-03	N	Located in Main Equipment file	
	EX2029	Fischer	50-100-1	9815	2001-12-13	2003-06-11	N	Located in Main Equipment file	
	EX2030	Fischer	50-100-1	9816	2001-12-13	2003-06-11	N	Located in Main Equipment file	
	EX2031	Fischer	50-100-1	9817	2001-12-13	2003-06-11	N	Located in Main Equipment file	
	EX2045	EMCO	3701	1171	2002-01-29	2003-07-28	N	Located in Main Equipment file	
	EX2046	EMCO	3701	1172	2002-05-20	2003-05-20	N	Located in Main Equipment file	

ESD Gun

	EX2036	Haefely	PESD 1600	H711221	2002-10-15	2003-10-15	N	Located in Main Equipment file	
	T33158	Schaffner	NSG432	00191	2002-06-11	2003-06-11	N	Located in Main Equipment file	

EFT Burst Tester

	EX1797	Haefely	Peft. Jr.	083315-10	2002-10-15	2003-10-15	N	Located in Main Equipment file	
	RN0045	Haefely	Peft. Jr.	083315-40	2002-10-02	2003-10-15	U		

Surge Tester

	T40077	Haefely	PSurge 6	083906-04	2002-10-12	2003-10-12	N	Located in Main Equipment file	
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Dip/Interrupt Tester

	T39974	Haefely	PLine 1610	083690-11	2002-03-04	2003-03-21	N	Located in Main Equipment file	
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Oscilloscope

	T29689	Tektronix	2236	B014947	2002-07-22	2004-07-22	N	Located in Main Equipment file	
	T33437	Tektronix	2236W/2	B027482	2002-07-22	2004-07-22	N	Located in Main Equipment file	

CLASSIFICATION / DESCRIPTION	ASSET TAG #	MFG.	MODEL	S/N	LAST CAL	CAL DUE	CONDITION RECEIVED N = NEW U = USED	HISTORY	NOTES/ COMMENTS
Transmit Antenna	EX1546	EMCO	ALP-51L	150	2002-10-09	2003-10-09	N	Located in Main Equipment file	
	EX1832	EMCO	6512	1198	2002-09-09	2003-12-09	N	Located in Main Equipment file	
	EX2671	Eaton	94592-1	0424	2002-05-30	2003-05-30	N	Located in Main Equipment file	
	T35884	EMCO	3115	9005-3459	2002-09-09	2003-12-09	N	Located in Main Equipment file	
	T35859	EMCO	3102	9003-2701	2002-10-09	2003-10-09	N	Located in Main Equipment file	
	EX2408	EMCO	3102	9405-2991	2002-09-08	2003-12-08	N	Located in Main Equipment file	
	T35858	EMCO	3102	9003-2790	2002-10-09	2003-10-09	N	Located in Main Equipment file	
	Transmit Antenna	EX2048	EMCO	3142	9804-1264	NCR	NCR	N	Located in Main Equipment file
	T28261	Eaton	94592-1	432	2002-09-12	2003-12-08	N	Located in Main Equipment file	
		Eaton	94607-1	360	2001-09-21	2002-09-21	N	Located in Main Equipment file	

Miscellaneous Eqpt.									
Meter	EX1820	Fluke	8060A	6665020	2002-07-22	2004-01-31	N	Located in Main Equipment file	
Function Gen.	A0007461	HP	3310A	A06261	2002-08-13	2004-01-31	U		
	T39982	HP	3325A	2652A24162	2001-04-23	2003-04-30	N	Located in Main Equipment file	
Har & Flick	EX2047	Pac. Pwr.	140-TMX	0205/9081	2002-07-29	2004-01-31	N	Located in Main Equipment file	
Clamp		Rh & Sch	MDS 21	76574	2001-09-07	2003-03-06	N	Located in Main Equipment file	
Sig. Leveling Unit	EX2041	AR	888	22093	NCR	NCR	N	Located in Main Equipment file	
Amp	EX2039	AR	100W1000M1	23150	NCR	NCR	N	Located in Main Equipment file	