

AYC-X64 – Product Description

General Description

This document describes the main features of a family of programmable Wiegand and Clock & Data proximity card and keypad readers with back light, where X stands for AYC-G64, AYC-F64, AYC-Q64.

AYC-X64 proximity and keypad reader provides a high level of compatibility with most host access controllers.

While detection a presence of proximity card or entering PIN (Personal Identification Number) code, the AYC-X64 sends the data over the Wiegand communication lines, change LED to Green for 1 second and sounds short beep.

Advanced features

Two Wiegand communication outputs

Build in optical tamper output

Green LED control input.

The transceiver section consists of an antenna coil, demodulator, filters, amplifiers, and microcontroller.

In the communication protocol, a '0' and a '1' are represented by Manchester modulation.

The demodulation is accomplished by detecting the envelope of the carrier signal. A half-wave capacitor-filtered rectifier circuit is used for the demodulation process. A diode detects the peak voltage of the backscattering signal. The voltage is then fed into an RC charging/discharging circuit.

The demodulated signal must then pass through a filter and signal shaping circuit before it is fed to the microcontroller.

The microcontroller performs data decoding and communicates with the host computer through a SIA Wiegand 26 bit serial interface protocols.

AYC-F64

Mechanical dimensions: 69.5 x 46mm

Wire thickness: D=0.15mm

Number of wraps: W/98T

Induction: 1.38mH at 120Hz, Q factor 0.049

Resistance: 20.4 OHM

AYC-G64

Mechanical dimensions: 85.4 x 25.4mm

Wire thickness: D=0.15mm

Number of wraps: W/110T

Induction: 1.4mH at 120Hz, Q factor 0.048

Resistance: 22.2 OHM

AYC-Q64

Mechanical dimensions: 98.0 x 66.0mm

Wire thickness: D=0.15mm

Number of wraps: W/120T

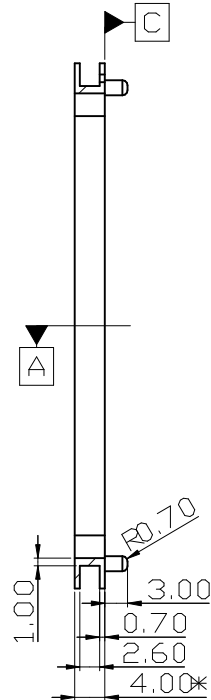
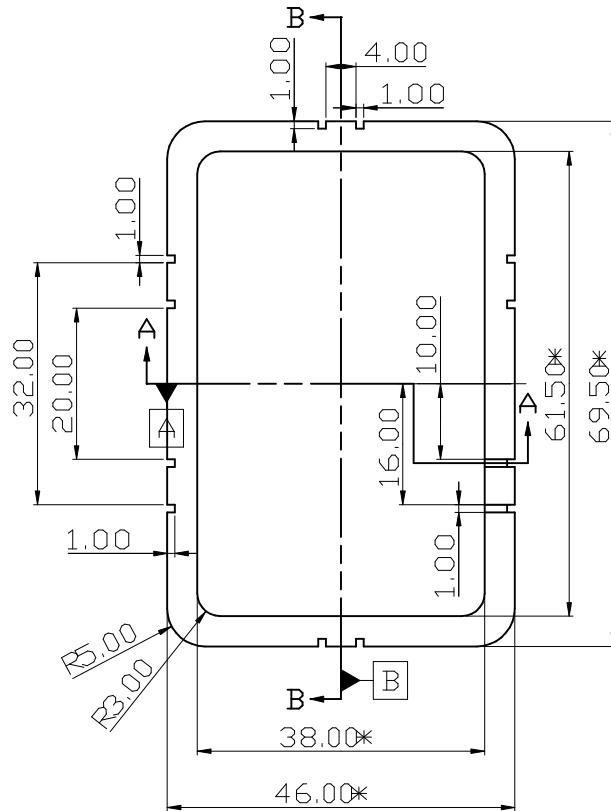
Induction: 3.01mH at 120Hz, Q factor 0.068

Resistance: 33.8 OHM

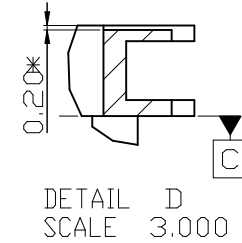
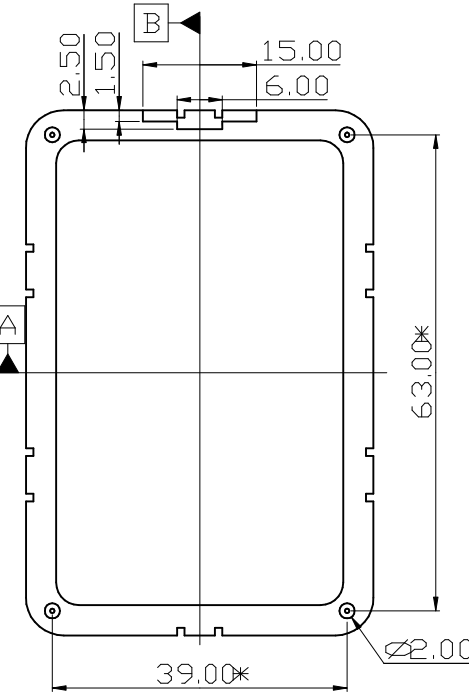
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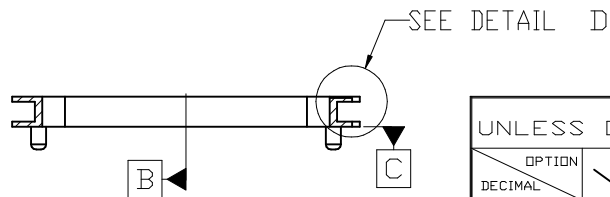
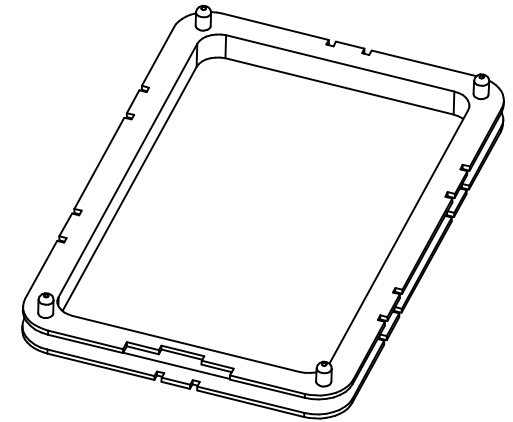
REV.	DETAIL	PLACE	NAME	DATE	APPROVAL	DATE
A0	FIRST ISSUE	ALL	Larkin	May 13,04		



SECTION B-B



DETAIL D
SCALE 3.000

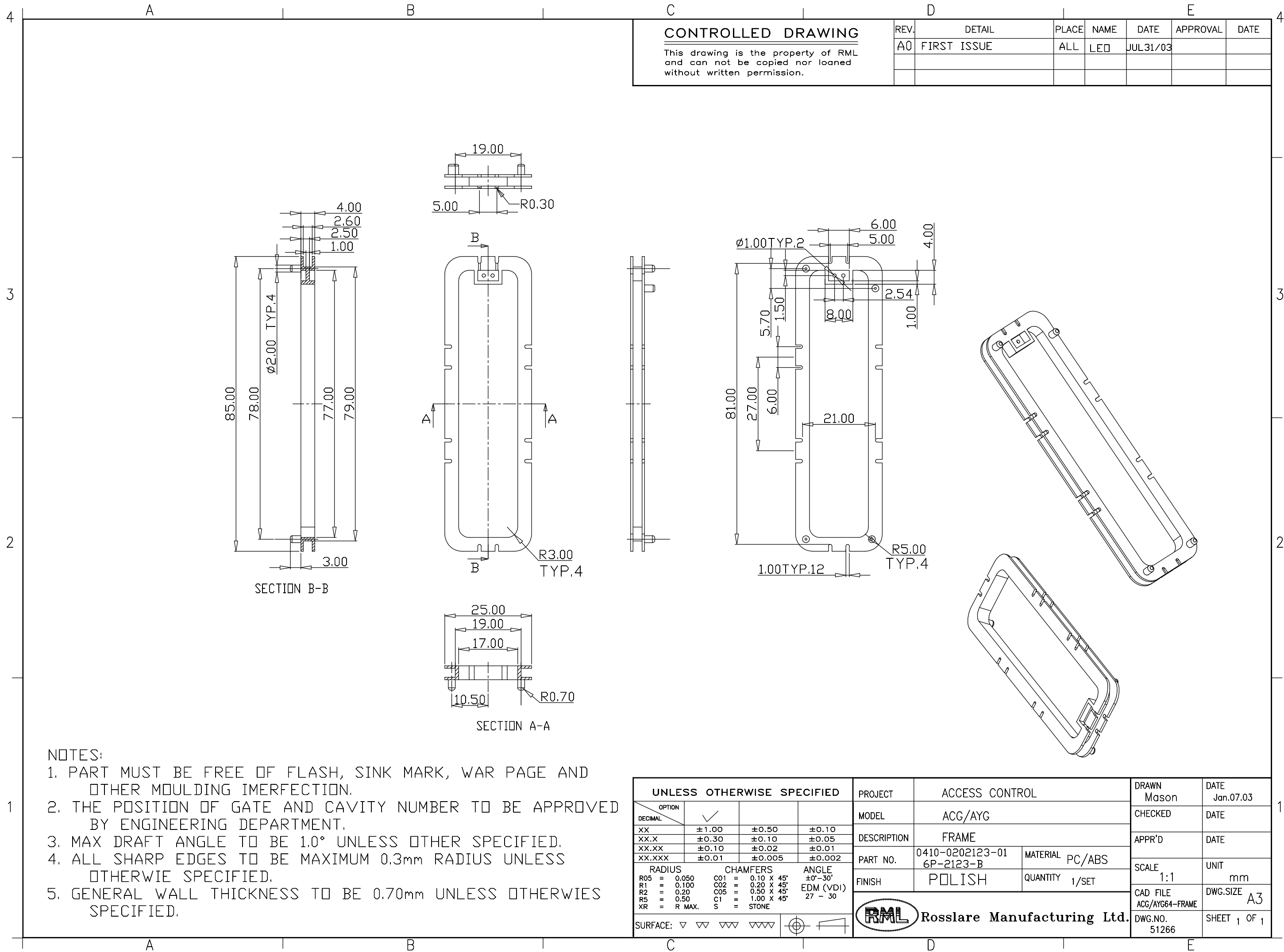


SECTION A-A

NOTES:

1. GENERAL PLASTIC WALL THK TO BE 1.00MM UNLESS OTHERWISE SPECIFIED.
2. ALL UNSPECIFIED CORNERS TO BE RADIUS MAX 0.50.
3. DRAFT ANGLES TO BE 0.5° UNLESS OTHERWISE SPECIFIED.
4. ALL ADD * DIMENSION FOR IMPORTANT DIMENSION AND QC CONTROL.

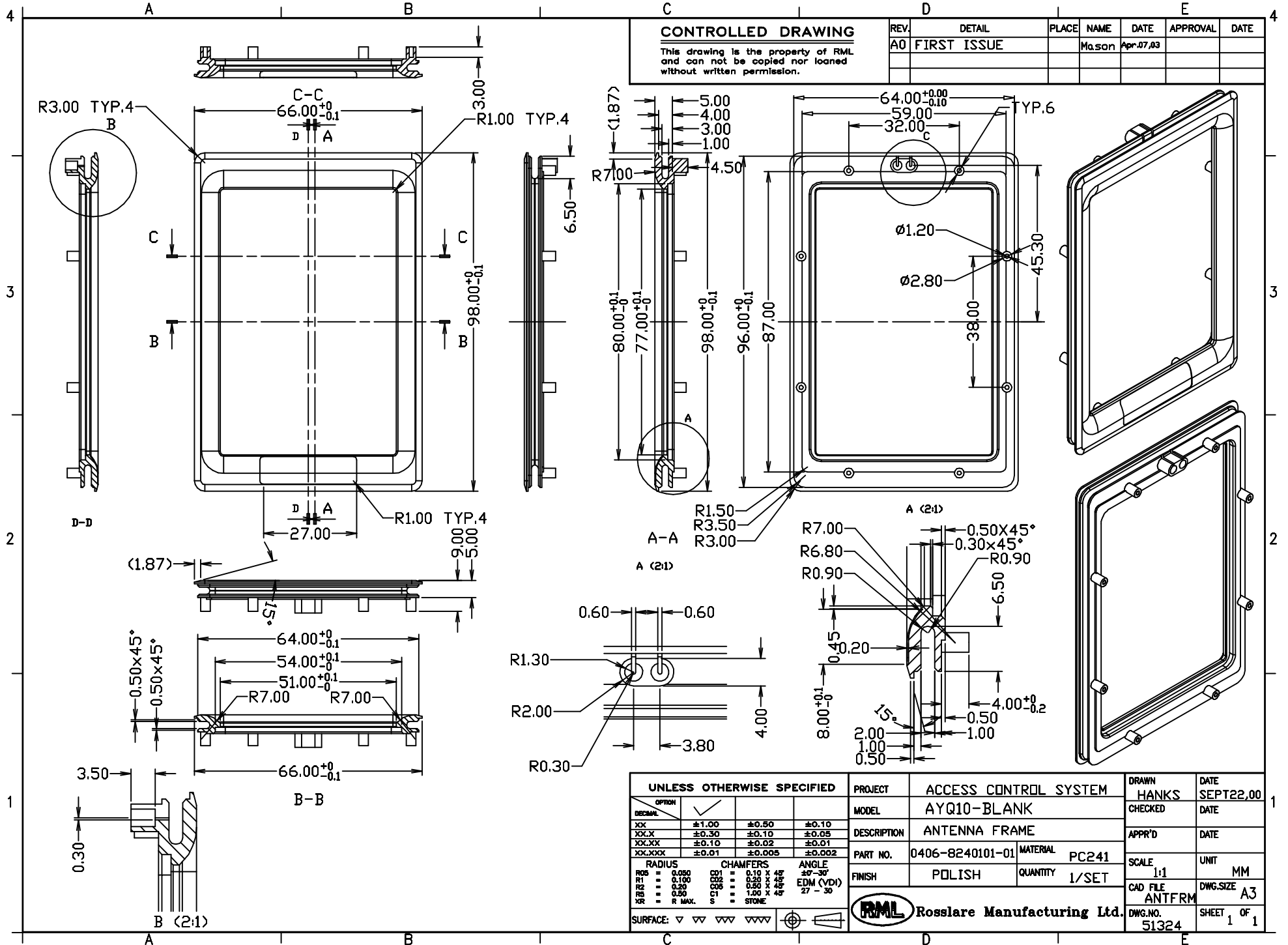
UNLESS OTHERWISE SPECIFIED				PROJECT	ACCESS CONTROL		DRAWN	DATE
OPTION				MODEL	ACF/AYF		Larkin	Sep 25,2003
DECIMAL				DESCRIPTION	FRAME		CHECKED	DATE
XX	±1.00	±0.50	±0.10	PART NO.	0410-0602278-01	MATERIAL	PC+ABS	APPR'D
XX.X	±0.30	±0.10	±0.05	FINISH	6P-2278-B	QUANTITY	1/SET	DATE
XX.XX	±0.10	±0.02	±0.01					SCALE
XX.XXX	±0.01	±0.005	±0.002					1:1
RADIUS								UNIT
R05 = 0.050	C01 = 0.10 X 45°	ANGLE	±0°-30°					mm
R1 = 0.100	C02 = 0.50 X 45°	EDM<V>ID	27 - 30					
R2 = 0.20	C05 = 1.00 X 45°							
R5 = 0.50	C1 = STONE							
XR = R MAX.								
SURFACE: ▽ ▽ ▽ ▽ ▽				RML Rosslare Manufacturing Ltd.		CAD FILE	DWG.SIZE	
						ACF/AYF FARM.DWG	A4	
						DWG.NO.	SHEET 1 OF 1	
						51338		



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REV.	DETAIL	PLACE	NAME	DATE	APPROVAL	DATE
A0	FIRST ISSUE		Mason	Apr.07.03		



UNLESS OTHERWISE SPECIFIED				PROJECT	ACCESS CONTROL SYSTEM		DRAWN	DATE
OPTION	✓			MODEL	AYQ10-BLANK		HANKS	SEPT22,00
DECIMAL				DESCRIPTION	ANTENNA FRAME		CHECKED	DATE
XX	±1.00	±0.50	±0.10	PART NO.	0406-8240101-01	MATERIAL	PC241	DATE
XX.X	±0.30	±0.10	±0.05	FINISH	POLISH	QUANTITY	1/SET	SCALE
XX.XX	±0.10	±0.02	±0.01					1:1
XX.XXX	±0.01	±0.005	±0.002					UNIT
								MM
RADIUS		CHAMFERS	ANGLE					CAD FILE
R05 = 0.050		C0 = 0.10 X 45°	30°-30°					ANTFRM
R1 = 0.100		C1 = 0.20 X 45°	EDM (VDI)					DWG.SIZE
R2 = 0.200		C2 = 0.50 X 45°	27 - 30					A3
R3 = 0.500		C3 = 1.00 X 45°						SHEET
R MAX.		S = STONE						1 OF 1
SURFACE: ▽ ▽ ▽ ▽ ▽ ▽								

RML Rosslare Manufacturing Ltd.

DWG.NO. 51324