

ATE-75 Bill of Materials

75" Outdoor TV Enclosure - Prototype Costing

External: 1760 × 1040 × 130mm | Internal: 1700 × 1000 × 90mm

75"

TV Size

1760mm

Width

1040mm

Height

130mm

Depth

1. Enclosure Structure

1.1 Frame & Panels

| Component | Qty | Unit Cost | Total | Part # |
|---------------------|-----|-----------|---------|------------|
| Main Frame Assembly | 1 | \$52.00 | \$52.00 | APEX-FR-75 |
| Back Panel | 1 | \$35.00 | \$35.00 | APEX-BP-75 |

| | | | | |
|---------------------------|---|---------|----------|--------------|
| Front Bezel Frame | 1 | \$18.00 | \$18.00 | APEX-BZ-75 |
| Internal Baffle | 1 | \$6.00 | \$6.00 | APEX-BF-75 |
| VESA Mount Plate | 1 | \$10.00 | \$10.00 | APEX-VESA-75 |
| Gas Struts (pair) | 2 | \$4.50 | \$9.00 | GS-150N-300 |
| Subtotal - Frame & Panels | | | \$130.00 | |

1.2 Glass Assembly

| Component | Qty | Unit Cost | Total | Part # |
|---------------------------------|-----|-----------|----------|---------------|
| Laminated Glass Panel (4mm+4mm) | 1 | \$88.00 | \$88.00 | APEX-GL-75 |
| AR Coating (both sides) | 1 | \$28.00 | \$28.00 | AR-COAT-2S-75 |
| IR Rejection Film | 1 | \$100.00 | \$100.00 | 3M-PR90-75 |
| Subtotal - Glass Assembly | | | \$216.00 | |

1.3 Seals & Gaskets (IP66)

| Component | Qty | Unit Cost | Total | Part # |
|----------------------------|-----|-----------|---------|-----------------|
| Main Door Gasket | 6m | \$1.80/m | \$10.80 | EPDM-CH-1215-BK |
| Glass Seal Gasket | 6m | \$0.80/m | \$4.80 | SIL-U8-BK |
| Cable Glands IP68 | 3 | \$2.50 | \$7.50 | CG-M20-SS316 |
| ePTFE Breather Vent | 2 | \$4.00 | \$8.00 | GORE-PMF100 |
| Subtotal - Seals & Gaskets | | | \$31.10 | |

2. Thermal Management System

2.1 Fans & Ventilation

| Component | Qty | Unit Cost | Total | Part # |
|---------------------------------|-----|-----------|----------|------------------|
| Main Cooling Fan (Noctua 140mm) | 4 | \$28.00 | \$112.00 | NF-A14-iPPC-3000 |
| Fan Mounting Grommets | 16 | \$0.50 | \$8.00 | NA-SAV4 |
| IP66 Intake Labyrinth Grille | 4 | \$8.00 | \$32.00 | VENT-IP66-150 |
| IP66 Rain Cowl/Hood | 1 | \$15.00 | \$15.00 | APEX-COWL-IP66 |
| Subtotal - Fans & Ventilation | | | \$167.00 | |

2.2 Filtration

| Component | Qty | Unit Cost | Total | Part # |
|-----------------------|-----|-----------|---------|--------------|
| Intake Filter Frame | 2 | \$3.00 | \$6.00 | APEX-FILT-FR |
| Filter Media | 4 | \$2.00 | \$8.00 | AF-150-40PPI |
| Subtotal - Filtration | | | \$14.00 | |

2.3 Control System

| Component | Qty | Unit Cost | Total | Part # |
|--------------------------|-----|-----------|---------|--------------|
| PWM Fan Controller Board | 1 | \$15.00 | \$15.00 | APEX-CTRL-V1 |

| | | | | |
|-------------------------------|---|--------|---------|--------------|
| Temperature Sensor - Internal | 2 | \$1.50 | \$3.00 | DS18B20-WP |
| Temperature Sensor - Exhaust | 1 | \$0.80 | \$0.80 | NTC-10K-3950 |
| Alarm Buzzer | 1 | \$0.50 | \$0.50 | BZ-12V-85DB |
| Subtotal - Control System | | | \$19.30 | |

3. Electrical System

3.1 Power Distribution

| Component | Qty | Unit Cost | Total | Part # |
|-------------------------------|-----|-----------|---------|--------------|
| IEC Power Inlet | 1 | \$3.50 | \$3.50 | IEC-C14-FS |
| Fuse | 2 | \$0.10 | \$0.20 | F-3A-250V-SB |
| Surge Protector MOV | 2 | \$0.50 | \$1.00 | MOV-275V-14D |
| Terminal Block | 1 | \$2.00 | \$2.00 | TB-3P-10A |
| DC Power Supply (12V 3A) | 1 | \$8.00 | \$8.00 | LRS-35-12 |
| Accessory Outlet | 1 | \$3.00 | \$3.00 | UK-13A-PM |
| Subtotal - Power Distribution | | | \$17.70 | |

3.2 Wiring & Connectors

| Component | Qty | Unit Cost | Total | Part # |
|-----------|-----|-----------|-------|--------|
|-----------|-----|-----------|-------|--------|

| | | | | |
|--------------------------------|------|----------|--------|---------------|
| Mains Cable | 2.5m | \$0.80/m | \$2.00 | H05VV-F-3G1.0 |
| DC Fan Cable | 4m | \$0.50/m | \$2.00 | PWM-4W-22AWG |
| Fan Connector | 4 | \$0.30 | \$1.20 | FAN-4P-MF |
| Cable Ties | 25 | \$0.02 | \$0.50 | CT-150-UV |
| Adhesive Cable Mounts | 12 | \$0.15 | \$1.80 | 3M-VHB-CM |
| Earth Bonding Strap | 2 | \$0.50 | \$1.00 | EB-10-TC |
| Subtotal - Wiring & Connectors | | | \$8.50 | |

4. Hardware & Fasteners

4.1 Fasteners (316 Stainless)

| Component | Qty | Unit Cost | Total | Part # |
|-------------------------|-----|-----------|---------|--------------|
| Frame Screws | 50 | \$0.08 | \$4.00 | M4-10-PH-A4 |
| Back Panel Screws | 15 | \$0.12 | \$1.80 | M5-12-CH-A4 |
| VESA Screws | 8 | \$0.25 | \$2.00 | M6-15-A4-KIT |
| Hinge Screws | 10 | \$0.08 | \$0.80 | M4-8-CS-A4 |
| Nylon Isolation Washers | 60 | \$0.02 | \$1.20 | NYL-M4M5-KIT |
| Threaded Inserts | 25 | \$0.10 | \$2.50 | TI-M4-AL |
| Subtotal - Fasteners | | | \$12.30 | |

4.2 Door Hardware & Security

| Component | Qty | Unit Cost | Total | Part # |
|--------------------------|-----|-----------|---------|---------------|
| Concealed Hinges | 3 | \$4.50 | \$13.50 | HINGE-316-CC |
| Compression Latches | 5 | \$3.80 | \$19.00 | LATCH-316-ADJ |
| Tubular Cam Locks | 2 | \$5.50 | \$11.00 | LOCK-TUB-316 |
| Padlock Hasps | 2 | \$1.50 | \$3.00 | HASP-316-10 |
| Magnetic Door Catch | 1 | \$2.50 | \$2.50 | MAG-CATCH-SS |
| Subtotal - Door Hardware | | | \$49.00 | |

4.3 Mounting System

| Component | Qty | Unit Cost | Total | Part # |
|------------------------------|-----|-----------|---------|---------------|
| Full-Motion Articulating Arm | 1 | \$38.00 | \$38.00 | MOUNT-FM-60KG |
| Wall Plate | 1 | \$8.00 | \$8.00 | APEX-WP-75 |
| Wall Anchors | 6 | \$0.80 | \$4.80 | M10-CONC-SS |
| Subtotal - Mounting System | | | \$50.80 | |

5. Packaging & Documentation

| Component | Qty | Unit Cost | Total | Part # |
|------------|-----|-----------|--------|-----------|
| Carton Box | 1 | \$8.00 | \$8.00 | BOX-75-DW |

| | | | | |
|-----------------------------|---|--------|---------|--------------|
| Foam Corners | 1 | \$6.00 | \$6.00 | FOAM-75-SET |
| Glass Protection | 1 | \$3.00 | \$3.00 | GP-75 |
| Accessories Box | 1 | \$1.25 | \$1.25 | ACCBOX-75 |
| Installation Manual | 1 | \$0.50 | \$0.50 | MAN-APEX-75 |
| Clearance Gauge | 1 | \$0.50 | \$0.50 | GAUGE-75 |
| Spare Filter | 2 | \$2.00 | \$4.00 | AF-150-40PPI |
| Subtotal - Packaging & Docs | | | \$23.25 | |