

EXHIBIT 4

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.**

**Before the Honorable Monica Bhattacharyya
Administrative Law Judge**

In the Matter of

**CERTAIN OUTDOOR AND SEMI-
OUTDOOR ELECTRONIC DISPLAYS,
PRODUCTS CONTAINING SAME,
AND COMPONENTS THEREOF**

Inv. No. 337-TA-1331

COMPLAINANT’S PROPOSED CLAIM CONSTRUCTIONS

Complainant Manufacturing Resources International, Inc. (“MRI”) hereby serves its proposed claim constructions. MRI’s investigation is ongoing and it thus reserves the right to supplement, amend, or modify this disclosure in light of any later discovery.

Claim(s)	Identified Term	Proposed Constructions
’595, claim 1 preamble	“A system for cooling an electronic display having a posterior display surface and contained within a housing, the system comprising”	The preamble is limiting. <i>See also</i> construction of “electronic display” below.
’595, claims 1, 4, 7, 8, 9, 16 ’322, claims 1, 3, 4, 5, 7, 8, 9, 12, 13	“constricted convection”	Heat transfer that occurs by narrowing a flow path of a fluid in contact with a surface to increase the effectiveness of the heat transfer
’595, claims 1, 4, 8, 9 ’322, claims 1, 3, 4, 5, 7, 8, 9, 12, 13	“constricted convection plate”	A flat structure, distinct from the housing, located in proximity to the [posterior display surface / posterior surface] to narrow an air flow path, thereby directing airflow into contact with the [posterior display surface / posterior surface] to

Claim(s)	Identified Term	Proposed Constructions
		increase the effectiveness of convective heat transfer from the display
'595, claims 1, 4, 7, 9, 16	"constricted convection channel"	A narrowed air flow path in contact with the [posterior display surface / posterior surface] formed by a flat structure, distinct from the housing, located in proximity to the [posterior display surface / posterior surface] to increase the effectiveness of convective heat transfer from the display
'595, claim 4	"a fan positioned to draw air through the constricted convection channel."	Plain and ordinary meaning.
'595, claim 9 U.S.C. § 112 ¶ 6	"means for cooling the gas in the closed loop"	Invokes 112 ¶ 6. Function: cooling the gas in the closed loop Structure: an ambient air vent system including a housing with vent openings for entrances and exits and/or a refrigeration unit
'595, claims 9, 13 U.S.C. § 112 ¶ 6	"means for propelling the gas around the closed loop"	Invokes 112 ¶ 6. Function: propelling gas around the closed loop Structure: one or more fans within the closed loop
'595, claims 9, 16 U.S.C. § 112 ¶ 6	"means for forcing air through the constricted convection channel"	Invokes 112 ¶ 6. Function: forcing air through the constricted convection channel Structure: one or more fans
'595 patent: claim 1	"a fan placed to draw air from outside of the housing through the constricted convection channel"	Plain and ordinary meaning.
'595 patent: claims 7, 16	"near the exit"	Plain and ordinary meaning. Not indefinite.

Claim(s)	Identified Term	Proposed Constructions
'595 patent: claim 1 '322 patent: claim 3	"posterior display surface"	Plain and ordinary meaning.
'595 patent: claim 4 '322 patent: claim 4	"a posterior surface on the rear side of the PCB"	Plain and ordinary meaning.
'595 patent: claim 9 '287 patent: claims 1, 2, 4-8, 11, 12, 17-19, 21, 22 '142 patent: claims 1, 3, 6, 12, 15 '740 patent: claims 1, 5, 6, 8, 15, 16, 17, 20	"closed loop"	Plain and ordinary meaning.
'322, claim 1 preamble	"A system for cooling an electronic display having a posterior display surface and contained within a housing, the system comprising"	The preamble is limiting. <i>See also</i> construction of "electronic display" below.
'322, claim 1	"a fan placed to draw ambient air between the constricted convection plate and the rear posterior"	Plain and ordinary meaning. Not indefinite.
'322, claim 4	"a fan positioned to draw air between the constricted convection plate and the posterior surface"	Plain and ordinary meaning.
'322, claim 9, 13 U.S.C. § 112 ¶ 6	"means for forcing air between the constricted convection plate and the posterior surface of the electronic display"	Invokes 112 ¶ 6. Function: forcing air between the constricted convection plate and the posterior surface of the electronic display Structure: one or more fans
'322 patent: claims 3, 4	"substantially parallel"	Plain and ordinary meaning: "approximately parallel"
'322 patent: claims 1, 4, 7, 9, 12, 13	"between"	Plain and ordinary meaning.
'322 patent: claim 13	"near the entrance aperture"	Plain and ordinary meaning. Not indefinite.
'322 patent: claim 1	"the rear posterior"	Plain and ordinary meaning. Not indefinite.
'287, claims 1, 4, 8, 9, 10, 11, 12, 15, 17, 18, 19, 21, 22, 23	"electronic display assembly"	Digital display suitable for environments where the

Claim(s)	Identified Term	Proposed Constructions
		thermal stability of the display may be at risk
'740, claims, 1-6, 8, 10, 13, 15, 16, 18 '595 claims 1 and 9 '322 claims 1 and 9, 12, 13, 16	"electronic display"	Digital display suitable for environments where the thermal stability of the digital display may be at risk
'142, claims 1, 3, 6, 12	"electronic image assembly"	Digital display suitable for environments where the thermal stability of the digital display may be at risk
'740, claims 1, 4, 8, 17; '142, claims 3, 6, 15	"heat exchanger"	A device for transferring heat from one fluid to another without allowing them to mix
'287, claim 1	"outside of the closed loop gas cooling chamber,"	outside of the closed loop gas cooling chamber and isolated from the cooling gas
'287, claim 21	"the electronic display is isolated from the closed loop of cooling gas but contactable by ambient air flowing through the open loop ambient air pathway;"	the electronic display is located outside of the closed loop gas cooling chamber and is isolated from the closed loop of cooling gas but contactable by ambient air flowing through the open loop ambient air pathway
'287 patent: claim 12	"open loop of ambient air which passes through the housing and along the backlight"	Plain and ordinary meaning.
'287 patent: claim 15	"the rear cooling chamber"	Plain and ordinary meaning. Not indefinite.
'287 patent: claims 9, 15	"one or more electronic devices for operating the electronic display positioned within the sealed plenum" / "one or more electronic components for driving the LCD positioned within the rear cooling chamber"	Plain and ordinary meaning. Not indefinite.

Dated: December 21, 2022

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I, Pamela A. Freitik, hereby certify that the attached document has been served upon the following parties as indicated below on December 21, 2022.

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/s/ Pamela A. Freitik

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