member_receives[11,40]

$\forall E,X_1,X_2$:Type, dE:EqDecider(E), dL:EqDecider(IdLnk), $pred?$:($E\rightarrow(?E)$),
 $info$:($E\rightarrow((:\mathrm{Id} \times X_1) + (:(:\mathrm{IdLnk} \times E) \times X_2))$),
 p:($\forall e{:}E$, l:IdLnk.
  $\exists e'{:}E$
   ($\forall e''{:}E$.
   ($\uparrow\mathrm{rcv?}(e'')$)
   $\Rightarrow$ ($\mathrm{sender}(e'') = e$)
   $\Rightarrow$ ($\mathrm{link}(e'') = l$)
   $\Rightarrow$ ((($e'' = e'$) $\vee$ $e'' < e'$) $\wedge$ ($\mathrm{loc}(e') = \mathrm{destination}(l) \in \mathrm{Id}$)))),
 e:E, l:IdLnk.
SWellFounded(pred!(e;e'))
$\Rightarrow$ ($\forall e{:}E$. ($\neg(\uparrow\mathrm{first}(e))$) $\Rightarrow$ ($\mathrm{loc}(\mathrm{pred}(e)) = \mathrm{loc}(e) \in \mathrm{Id}$))
$\Rightarrow$ ($\forall e,e'{:}E$. ($\mathrm{loc}(e) = \mathrm{loc}(e') \in \mathrm{Id}$) $\Rightarrow$ ($pred?(e) = pred?(e')$) $\Rightarrow$ ($e = e'$))
$\Rightarrow$ ($\forall r{:}E$.
  ($r \in \mathrm{receives}(dE; dL; pred?; info; p; e; l)$)
  $\iff$ (($\uparrow\mathrm{rcv?}(r)$) c$\wedge$ (($\mathrm{sender}(r) = e$) $\wedge$ ($\mathrm{link}(r) = l$))))

---

http://www.nuprl.org/FDLcontent/p0_963683_/p68_278296_{member_receives}.html